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PERSONAL.

Mr. S. M. Felton, of Cincinnati, O., has resigned his position as President of the Cincinnati Southern Ry.

Mr. Frank S. Washburn, M. Am. Soc. C. E., contracting engineer, of New York city, has removed his office to the Cole Bldg., Nashville, Tenn.

Mr. William H. Evers has been appointed Surveyor of Cuyahoga county, O., with headquarters at Cleveland, to succeed the late Mr. Samuel J. Baker.

Mr. W. O. Taylor has been appointed Road Foreman of Engines of the Philadelphia Division of the Philadelphia & Reading Ry., with headquarters in Philadelphia, Pa.

Mr. S. Misaki, General Superintendent and Engineer of the Shadzuoki & Yokaichi Interurban Electric Ry. of Japan, is in the United States studying electric railway systems.

Mr. Ira A. McCormack, Superintendent of the Brooklyn Rapid Transit Co., of Brooklyn, N. Y., has resigned his position to become Vice-President of the Syracuse Rapid Transit Co., of Syracuse, N. Y.

Mr. R. H. Bowron, until recently Superintendent of the Cascade Division of the Great Northern Ry., has become Superintendent of the St. Louis Southwestern Ry., with headquarters at Tyler, Tex.

Mr. Charles Rendel, of the Indian State Rys., and son of Sir Alexander M. Rendel, of Westminster, London, Consulting Engineer for that system, is in the United States studying railway methods.

Mr. Mord Roberts, formerly Master Mechanic of the St. Louis, Iron Mountain & Southern Ry., has been appointed General Master Mechanic of the Louisville & Nashville R. R., with headquarters at Louisville, Ky.

Mr. William A. Gaston, President of the Boston Elevated Ry. Co., has resigned his position, and Mr. William A. Bancroft, Vice-President, has been chosen as his successor. Mr. Gaston has been made Chairman of the Advisory Board.

Mr. Walter Cook was elected President, Mr. A. W. Brunner, Treasurer; Mr. Jas. B. Baker, Recording Secretary, and Mr. A. L. Brockway, Corresponding Secretary, of the New York Chapter of the American Institute of Architects at its annual meeting on Oct. 11.

Mr. Joseph Wijingaard, Chief Engineer of the Department of Railways, Posts and Telegraphs, of the Belgian State Ry. Co., of Brussels, Belgium, is now in the United States. He proposes to inspect thoroughly all the railway systems in this country before returning to Europe.

Mr. G. R. Brown, General Superintendent of the Fall Brook Ry., before its consolidation with the New York Central & Hudson River R. R., has been appointed Vice-President and General Manager of the New York & Pennsylvania R. R., running from Canisteo, N. Y., to Millport, Pa.

Mr. Harvey Middleton, for three years Mechanical Superintendent of the Baltimore & Ohio R. R., with headquarters at Mount Clare, Baltimore, Md., has tendered his resignation to take effect Nov. 1. He will be succeeded by Mr. J. N. Barr, Superintendent of Motive Power of the Chicago, Milwaukee & St. Paul Ry.

Mr. R. C. Blackall, Superintendent of Motive Power and Machinery on the Delaware & Hudson R. R., has been appointed Consulting Mechanical Engineer, with headquarters at Albany. Mr. J. R. Slack, Assistant Superintendent of Motive Power, will assume charge of that office until a successor to Mr. Blackall has been appointed.

The following changes in positions have recently been made by graduates of the Rensselaer Polytechnic Institute, of Troy, N. Y.: Mr. William B. Ridgely, of the class of '79, formerly Vice-President of the Springfield Iron Co., is District Manager of the Republican Iron & Steel Co., with headquarters at Chicago; Mr. H. N. Stevenson, of the class of '66, Commander, U. S. Navy, is at Pittsfield, Mass.; Mr. John L. Martin, of the class of '94, is Principal of the School of Mathematics of the International Correspondence Schools at Scranton, Pa.; he has just edited a convenient and valuable "Building Trades Pocket Book"; Mr. Theodore S. Haight, of the class of '85, who has been engaged in the manufacture of leather at Ballston, N. Y., has been made a director of the leather trust; Mr. B. Walker Peterson, of the class of '73, is Cashier of the Dollar Savings Bank and Vice-President of the Wheeling Ry. Co., at Wheeling, W. Va.; Mr. S. L. Tone, of the class of '86, is now Chief Engineer of the Philadelphia Co., controlling electric railway lines in Pittsburg, Pa.; Mr. W. E. Dauchy, of the class of '75, has recently been appointed Chief Engineer of the Chicago, Rock Island & Pacific Ry. Co., with headquarters at Chicago; Mr. Stewart Johnston, of the class of '87, is the President of the Pittsburg Steel Foundry, now erecting works at Glassport, near Pittsburg, Pa.; Mr. John M. Lockhart, of the same class, is Vice-President of the same company; Mr. J. D. Hailman, also of the class of '87, is Secretary and Treasurer of the Morris & Bailey Co., manufacturers of steel, at Pittsburg.

OBITUARY.

Mr. J. B. Dumond, consulting engineer, of Boston, Mass., was accidentally shot and killed on Oct. 12, while hunting in the Maine woods.

Mr. John R. Miller, formerly City Engineer of Toledo, O., died in Denver, Colo., on Oct. 4, aged 42 years. He had gone to Colorado to regain his health.

Mr. Charles L. Strauch, of Dravosburg, Pa., Supervisor of the Monongahela Division of the Pennsylvania R. R., was accidentally killed by a train on Oct. 11.

Mr. John Robson, of John Robson & Son, of Pittsburg, Pa., chain makers, which sold out to Jones & Laughlins last January, was killed by a falling brick on Oct. 12, aged 77 years.

Prof. Edward Orton, Ph.D., LL.D., of the Ohio State University, died at his home in Columbus, O., on Oct. 16, aged 70 years. Since 1885 he has been State Geologist of Ohio, and last year he was elected President of the American Association for the Advancement of Science.

Mr. Isaac Libby died at his home in Waterville, Me., on Oct. 12, aged 62 years. In 1892 he purchased the Waterville & Fairfield St. Ry. & Light plant, and with Mr. A. F. Gerald, of Fairfield, he constructed the Calais & St. Stephen, the Skowhegan & Norrodgewock, the Bangor, Orono & Oldtown, and the Lewiston, Brunswick & Bath St. Rys., of which companies he was treasurer.

Mr. Lorenzo Dow died in New York city on Oct. 12, after an illness of nearly a year, at the age of 74 years. He was the inventor of a waterproof cartridge which was used extensively by the Federal government during the Civil War. Later he devoted his time to the development of silver mining and the railway and irrigation systems of Colorado. At the time of his death he was Acting President of the Dow Composing Machine Co. of New York city.

Vice-Admiral Philip Howard Colomb, R. N., died at his home in Botley, Hampshire, England, on Oct. 14, aged 69 years. He was an authority on the evolution of war vessels, and invented a system of flash signals for the British army and navy, which has been adopted by every navy in the world. In 1865 he devised a system of steam tactics, and in 1873 invented the system of interior lighting for warships, which is now universally used as an alternative to the electric light. It was also through his efforts that the Maritime Conference in Washington in 1889 passed an amendment to the rules for preventing collisions at sea. Among the most important books written by Admiral Colomb are: "The Manual of Fleet Evolution," "Naval Warfare," and "The Naval War Game, the Collision Diagram."

Mr. Joseph Wood, locomotive engineer and a wood-passer on the trial trip of the "John Bull" locomotive, of Nov. 12, 1831, died at Red Bank, N. J., on Oct. 17, aged 90 years. Mr. Wood was born in Bordentown, and first found employment on the old steamboat "Superior," one of the first to ply on the Delaware between Philadelphia and Bordentown. In 1831, when the "John Bull" was tried, he passed wood for the engineer, Isaac Dripps; and he later became a locomotive engineer on the Camden & Amboy Railway, and then became Master Mechanic on the Raritan & Delaware Bay R. R. From 1841 to 1859 he was engineer for the New Jersey Transportation Co.; and from 1861 to 1864 he was engaged in government transport service from Alexandria south. He invented several appliances in use on railways, including the Wood's frog, the rubber hose connecting the engine and water-tank, the sand-pipe, etc.

ENGINEERING SOCIETIES.

COMING GENERAL MEETINGS.

AMERICAN GAS LIGHT ASSOCIATION.
Oct. 18 to 20. At New York. Secy., Alfred E. Forstall, 58 William St., New York.
AMERICAN INSTITUTE OF ARCHITECTS.
Nov. 13 to 15. Annual meeting at Pittsburg, Pa. Secy., Glenn Brown, The Octagon, Washington, D. C.
NATIONAL MUNICIPAL LEAGUE.
Nov. 15 to 17. At Columbus, O. Secy., Clinton R. Woodruff, 514 Walnut St., Philadelphia, Pa.
SOCIETY OF NAVAL ARCHITECTS AND MARINE ENGINEERS.
Nov. 16 and 17. Annual meeting at New York. Secy., Francis T. Bowles, 12 West 31st St., New York city.

COMING LOCAL MEETINGS.

NEW YORK RAILROAD CLUB.
Oct. 19. At New York city. Secy., W. W. Wheatley, 168 Montague St., Brooklyn, N. Y.
CHICAGO ELECTRICAL ASSOCIATION.
Oct. 20. Secy., Cloyd Marshall, 1310 Monon Bldg., Chicago, Ill.
ENGINEERS' CLUB OF COLUMBUS.
Oct. 21. Secy., H. M. Gates, 12½ North High St., Columbus, O.
MONTANA SOCIETY OF CIVIL ENGINEERS.
Oct. 21. At Helena. Secy., Albert S. Hovey, Helena, Mont.
CLEVELAND CHEMICAL SOCIETY.
Oct. 30. Paper, "The Nitrogen Compounds in California Petroleum," by Dr. C. F. Mabery. Secy., Oscar Textor, 689 The Arcade, Cleveland, O.
AMERICAN SOCIETY OF CIVIL ENGINEERS.
Nov. 1. At New York. Secy., C. W. Hunt, 220 W. 57th St., New York city.
ENGINEERS' CLUB OF ST. LOUIS.
Nov. 1. Secy. Richard McCulloch, 2401 N. Spring Ave., St. Louis, Mo.
ENGINEERS' CLUB OF MINNEAPOLIS.
Nov. 2. Secy., H. E. Smith, 1620 S. E. 4th St., Minneapolis, Minn.
TECHNICAL SOCIETY OF THE PACIFIC COAST.
Nov. 3. At San Francisco. Secy., O. Von Geldern, 819 Market St., San Francisco, Cal.
ENGINEERS' SOCIETY OF WESTERN NEW YORK.
Nov. 6. At Buffalo. Secy., H. J. March, Library Bldg., Buffalo, N. Y.
AMERICAN SOCIETY OF MECHANICAL ENGINEERS.
Nov. 7. At New York. Secy., Francis E. Frothingham, 12 W. 31st St., New York city.
CENTRAL RAILWAY CLUB.
Nov. 10. At Buffalo. Secy., H. D. Vought, 114 5th Ave New York city.
ST. LOUIS RAILWAY CLUB.
Nov. 10. Secy., H. H. Roberts, 511 Commercial Bldg., St. Louis, Mo.
CIVIL ENGINEERS' CLUB OF CLEVELAND.
Nov. 14. Secy., W. H. Searles, Case Library Bldg., Cleveland, O.
DENVER SOCIETY OF CIVIL ENGINEERS.
Nov. 14. Secy., W. B. Lawson, 36 Jacobson Bldg., Denver, Colo.
NEW ENGLAND RAILROAD CLUB.
Nov. 14. At Boston. Secy., Edw. L. Jones, P. O. Box 1158, Boston, Mass.
NORTHWEST RAILWAY CLUB.
Nov. 14. At Minneapolis. Secy., T. A. Fogue, Soo Line, Minneapolis, Minn.
ENGINEERS' CLUB OF CINCINNATI.
Nov. 21. Secy., J. F. Wilson, P. O. Box 333, Cincinnati, O.
ENGINEERS' SOCIETY OF WESTERN PENNSYLVANIA.
Nov. 21. At Pittsburg. Secy., R. A. Fessenden, 410 Penn Ave., Pittsburg, Pa.
WESTERN RAILWAY CLUB.
Nov. 21. At Chicago. Secy., J. W. Taylor, 667 The Rookery, Chicago, Ill.
BOSTON SOCIETY OF CIVIL ENGINEERS.
Nov. 22. Secy., S. E. Tinkham, City Hall., Boston, Mass.

ENGINEERS' SOCIETY OF WESTERN PENNSYLVANIA.—The regular monthly meeting of the society was held on Oct. 17, when the report of the Power Committee was discussed. Reginald A. Fessenden, Secy.

THE FRANKLIN INSTITUTE.—A meeting of the institute was held Oct. 18, 1899. The following papers were read: "Giffard's Invention and the Development of the Self-Acting Injector," Mr. Strickland Kneass, Member of the Institute. The paper of Mr. Kneass was a concise historical sketch of the evolution of the steam injector, with illustrations of various forms of the apparatus. "An Apparatus for Embossed Printing for the Use of the Blind," Mr. Wm. B. Walt, Superintendent of the New York Institution for the Blind. Wm. H. Wahl, Secy.

WESTERN RAILWAY CLUB.—The regular monthly meeting of the club was held in the Auditorium Hotel, Chicago, Ill., on Oct. 17, 1899. A paper from Dr. J. E. Reynolds, Health Commissioner of the City of Chicago, on the subject of "The Smoke Nuisance as it Applies to Railroads, and the Abatement Thereof," was read and discussed. The general discussion, on "What Would be the Advantage to Railroads in Adopting a Box Car of Typical Inside Dimensions?" was opened by Mr. G. W. Rhodes, Asst. Gen'l Supt., Burlington & Missouri River R. R. A paper entitled "Piece Work in a Railroad Shop," by R. T. Shea, was also presented. Jos. W. Taylor, Secy.
667 The Rookery, Chicago, Ill.

AMERICAN SOCIETY OF CIVIL ENGINEERS.—A regular meeting was held at the Society House on Oct. 18, 1899. A paper entitled "The Reaction Breakwater as Applied to the Improvement of Ocean Bars," by Lewis M. Haupt, M. Am. Soc. C. E., was presented for discussion. This paper was printed in the September number of the proceedings.

The nominating committee has presented the following list of nominees for officers for the year 1900: President, John Findley Wallace, Chicago, Ill.; Vice-Presidents, Rudolph Hering, of New York city, and Alfred Noble, of Chicago, Ill.; Treasurer, Joseph M. Knap, New York city; Directors, John F. O'Rourke, New York city; Henry B. Seaman, New York city; Thomas H. Johnson, Pittsburg, Pa.; Henry B. Richardson, New Orleans, La.; Joseph Ramsey, Jr., St. Louis, Mo., and George A. Quinlan, Houston, Tex. C. W. Hunt, Secy.

OHIO ELECTRIC LIGHT ASSOCIATION.—The fifth annual meeting of the Association was held at the rooms of the Associated Technical Clubs, Cleveland, O., Oct. 10 and 11. In addition to the business of the Association, the following technical papers were read: "The Use of Exhaust Steam from Central Stations for Heating Purposes," Mr. E. P. Roberts, Cleveland; "A Few Suggestions to the Managers of Small Central Stations," Mr. Geo. Hayler, Jr., Van Wert, O.; "The Evolution of the Steam Turbine Dynamo," Mr. Lion Le Pontios, Cleveland; "Street Lighting by Direct and Alternating Currents," Mr. M. E. Turner, Cleveland; "The Arc Lamp Department of Central Station Business," Mr. H. W. Hillman, Schenectady, N. Y.; "A New Compensated Revolving Field Alternator," Mr. H. G. Reist, Schenectady, N. Y. Visits were made to a number of manufacturing plants during the meeting of the Association. The Association also attended in a body a lecture by Mr. Chas. E. Tripler, of New York, on "Liquid Air," at Grays' Armory. The fol-

lowing officers were elected for the ensuing year: President, Mr. E. L. Gaskill, Greenville, O.; Vice-President, Mr. W. S. Smith, Toledo, O.; Secretary and Treasurer, Mr. J. Q. Brown, Columbus, O.

AMERICAN GAS LIGHT ASSOCIATION.—The annual meeting of the association will be held at New York city, Oct. 18 to 20, 1899. The list of papers to be read at the meeting is as follows: "Another View of Interior Illumination," by Mr. F. N. Morton, Hoboken, N. J.; "The Steam Consumption in a Water Gas Plant," by Mr. Alten S. Miller, New York city; "The Pumping of Gas," by Mr. George J. Roberts, Philadelphia, Pa.; "Carbureted Water Gas as a Coal Gas Auxiliary," by Mr. A. G. Glasgow, London, England; "Some Experiments with the Edgerton Standard," by Mr. Rollin Norris, Philadelphia, Pa.; "Notes on Prepayment Meters," by Mr. Alexander H. Strecke, Newark, N. J. A lecture will be delivered to the association by Dr. Henry Morton, President of the Stevens Institute of Technology, Hoboken, N. J., upon "Recent Development of Artificial Illumination."

INTERNATIONAL CONGRESSES AT THE PARIS EXPOSITION.—Congresses of 105 different societies have been arranged for up to the present time for the Paris Exposition of 1900. Those attending or participating in these meetings will be required to pay a fee of 20f. or $5. The congresses devoted to engineering and allied subjects are given below, with the dates of meeting and the addresses of the respective secretaries, from whom further information may be obtained.

Agriculture, July 1 to 7, M. Sagnier, 106 Rue de Rennes; Architecture, July 30 to Aug. 4, M. Poupinel, 45 Rue Boissy—d'Anglas; Naval Architecture, July 19 to 21, M. Hauser, 4 Rue Meissonier; Railways, Sept. 20 to 29, M. Bouchet, 53 Rue de Clery; Chemistry, Sept. 20 to 29, M. Bertrand, 188 Boulevard Voltaire; Applied Chemistry, July 23 to 31, M. Dupont, 52 Rue de Dunkerque; Chronometry, July 23 to 31, M. Fichot, 13 Rue de l'Universite; Commerce and Industry, July 23 to 28, M. J. Hayem, 63 Avenue de Villiers; Electricity, Aug. 18 to 25, M. P. Janet, 14 Rue de Stael; Technical Education, Aug. 6 to 11, M. Lagrave, 74 Rue de l'Universite; Testing Materials, July 9 to 16, M. Debray, 41 Avenue Kleber; Mathematics, Aug. 6 to 11, M. Loesant, 162 Avenue Victor-Hugo; Applied Mechanics, July 19 to 25, M. G. Richard, 44 Rue de Rennes; Mines and Metallurgy, June 18 to 23, M. Grüner, 55 Rue de Chateaudun; Navigation, July 28 to Aug. 3, M. Pavie, 72 Rue du Faubourg-Saint-Honore; Tramways, Sept. 10 to 12, M. Sefillot, 80 Boulevard Saint-Marcel.

SOCIETY OF NAVAL ARCHITECTS AND MARINE ENGINEERS.—The seventh general meeting of the society will take place in New York city, Nov. 16, 1899. The meetings will be held at the house of the American Society of Mechanical Engineers, 12 West 31st St., the sessions continuing through Nov. 16 and 17. The list of the papers to be read at this meeting is as follows: "Coaling Vessels at Sea," by Spencer Miller, M. Am. Soc. C. E.; "Causes for the Adoption of Water-Tube Boilers in the U. S. Navy," by Engineer-in-Chief Geo. W. Melville, U. S. N.; "Suggestions as to Improved Appliances for Launching Ship's Boats," by John Hyslop; "The Electric Plants of the Battleships 'Kearsarge' and 'Kentucky,'" by Naval Constructor J. J. Woodward, U. S. N.; "The Increasing Complications in Warships, and How Simpler Arrangements Might be Adopted," by Geo. W. Dickie; "Beam Formulæ Applied to a Vertically Stiffened Bulkhead, with Some Results," by H. F. Norton; "Notes on Sheathing the U. S. S. 'Chesapeake,'" by Naval Constructor Lloyd Bankson, U. S. N.; "System of Work in a Great Lake Shipyard," by W. I. Babcock; "Overhead Cranes, Staging and Riveter Carrying Appliances in the Shipyard," by James Dickie; "Designs for the Denver Class Sheathed Protected Cruisers," by Chief Constructor Philip Hichborn, U. S. N.; "Novelties in Ship Fittings," by Asst. Naval Constructor R. M. Watt, U. S. N.; "Progressive Speed Trials of the U. S. S. 'Manning,'" by Prof. C. H. Peabody; "Tactical Considerations Involved in Torpedo-Boat Design," by Lieut. A. P. Niblack, U. S. N.; "On the Action of the Rudder, with Special Reference to the Motion of the Ship While the Helm is Being Put Over," by Prof. Wm. F. Durand.

Francis T. Bowles, Secy.

NEW PUBLICATIONS.

NEW SOUTH WALES GOVERNMENT RAILWAYS AND TRAMWAYS.—Annual Report of the Railway Commissioners for the Year Ended June 30, 1899. Published by the Commission, Sydney, New South Wales. Paper; 4to.; pp. 69; plates 31.

The government owns and operates the 2,706 miles of railway in the colony, and the 66 miles of street railway in the city of Sydney. The report gives details of traffic and operating statistics, and also particulars of the work of the engineering and motive power departments.

FLORIDA, CUBA, NASSAU, JAMAICA AND PORTO RICO.—Issued by the Atlantic Coast Line; J. R. Kenly, General Manager; H. M. Emerson, General Passenger Agent, Wilmington, N. C. Paper; 8vo.; pp. 30; illustrated.

This pamphlet consists mainly of half-tone engravings of scenery in Florida and the West Indies, including some views of camp and military life during the recent war. Two pages are devoted to two noted trains for winter tourist service, the New York & Florida Special, and the Florida & West Indian Limited.

THE INSPECTION OF IRON AND STEEL.—By Frank C. Osborn, M. Am. Soc. C. E. Reprint from Bridges and Framed Structures. Paper; 6½ × 9 ins.; pp. 18.

This paper discusses briefly the purposes and necessity of careful shop and mill inspection of iron and steel for bridges and framed structures. The methods of inspection practiced by the Osborn Co., Cleveland, O., are given in detail. Various forms and blanks are shown for keeping the record of inspections and reporting the results to the purchaser.

NEUE STRASSENBRUECKE UBER DEN NIAGARA-FLUSS.—By F. C. Kunz, M. Am. Soc. C. E., Pencoyd Iron Works, Philadelphia, Pa. Paper; 10 × 13 ins.; pp. 18; illustrated.

This is a good description of the new 840-ft. span steel arch highway bridge completed across the Niagara gorge in 1898. The matter was originally published in "Zeitschrift des Oesterreichischen Ingenieur-und-Architekten-Vereins" in 1899, and is now reprinted in pamphlet form for more convenient use.

TRADE PUBLICATIONS.

(The standard sizes for pamphlets and trade catalogues recommended by all the principal engineering societies of the United States are: 3½ x 6 ins., 6 x 9 ins., and 9 x 12 ins.)

WOOTTEN BOILERS.—Baldwin Locomotive Works, Philadelphia, Pa.; 9 × 6 ins.; pp. 21; illustrated.

This is a reprint of an address delivered by Mr. S. M. Vauclain, of the above company, before the New York Railway Club on April 20, 1899, together with a part of the discussion which followed.

WOODEN TANKS.—Minnesota Tank Co., Minneapolis, Minn. Paper; 9 × 12 ins.; pp. 4; illustrated.

This circular shows tanks for railway, village and farm water supply, and also box tanks for watering stock, etc. Wooden pipe for railway culverts, and for irrigation flumes, etc., is also manufactured by this company.

FIREPROOF HOUSE BUILDING.—New York Expanded Metal Co., New York; 13½ × 10¼ ins.; pp. 32; illustrated.

This pamphlet contains a number of handsome halftone views of dwelling houses which have employed expanded metal and concrete fireproofing in their construction.

ENGINEERS' BOOTS.—H. J. Putman & Co., Minneapolis, Minn. Paper; 5½ × 7⅝ ins.; pp. 24; illustrated.

This pamphlet describes different forms of boots for explorers, engineers, hunters, etc., some of which have pockets for compass sewn at the leg. Soft leather boots, shoes and mocassins for canoeing, snowshoeing, hunting, etc., are also shown.

SANDSTONE.—Minnesota Sandstone Co., 333 Hennepin Ave., Minneapolis, Minn. Paper; 4¾ × 6½ ins.; pp. 20; illustrated.

This pamphlet sets forth the advantages of the Kettle River sandstone for building purposes, paving and curbing. It is used in the wing dam at St. Anthony's Falls, and in the piers of bridges over the Missouri and Mississippi rivers.

BRIDGE AND ROOF PAINTS.—Maire Paint Co., Minneapolis, Minn. Paper; circulars.

These paints have been used on the floor systems of bridges over railway tracks with good results, and upon the roof of the Minneapolis city hall with good results, as shown by copies of testimonials. Boiler and smokestack coatings, and a roofing cement for stopping leaks are also manufactured.

WELL PUMPS.—The Downie Pump Co., Downieville, Pa. Paper; 8½ × 11 ins.; pp. 32; illustrated.

The Downie pump has a vertical inverted cylinder with a long horizontal crosshead, to each end of which is attached a rod connected to a pivoted arm carrying a pump rod. Steam, gasoline and geared pumps are shown, as well as working barrels, valves, pump rods. Portable well-drilling rigs are also illustrated.

GASOLINE ENGINES.—Globe Iron Works Co., Minneapolis, Minn. Paper; 9¼ × 6¼ ins.; pp. 28; illustrated.

The company builds the White engine in two types, vertical (for marine work) and horizontal (for stationary work). The former are operated on either the single cycle or four-period principle, while the latter are all on the four-period principle. A number of these engines are now in use.

RICHMOND, FREDERICKSBURG & POTOMAC R. R. (HISTORICAL AND GEOGRAPHICAL).—Issued by the R. F. & P. R. R.; E. T. D. Myers, President and General Manager, Richmond, Va. Paper; 8vo.; pp. 15; illustrated.

This railway was incorporated in 1834, opened in 1836, and connected with the Pennsylvania R. R. at Quantico in 1872. Particulars and illustrations are given of points of historical and general interest at Washington, Richmond, etc., including the Richmond Locomotive Works, and the Trigg shipbuilding works.

DIAMOND DRILLS.—M. C. Bullock Mfg. Co., 1165 W. Lake St., Chicago, Ill. Paper; 6 × 9 ins.; pp. 80.

The history and construction of diamond drilling machines, as manufactured and introduced by this company, are described, and various forms of machines and boring tools are described and illustrated in detail. There are numerous half-tone engravings and testimonials from all parts of the world in regard to the use of Bullock machines for mining and prospecting work. The largest of these machines will drill a 2⅞-in. hole 5,280 ft. deep.

BELT CONVEYORS.—Robbins Conveying Belt Co., New York, N. Y. Paper; 6 × 9 ins.; pp. 49; illustrated.

This is an unusually valuable catalogue to those interested in the construction and operation of belt conveying machinery. It contains descriptions of the component parts of the system and the reasons which have led to their adoption; line cuts of typical uses of belt conveyors and a large number of cuts from photographs showing belt conveyors in operation in a great number of different services, such as handling soft and hard coal at mines and in storage and power plants, sand and gravel at washeries, crushed stone, dredgings, ores of all descriptions, oxide in gas plants, cement, limestone, etc. The peculiarities of each plant are briefly described.

PIPE AND BOILER COVERINGS.—American Insulating Material Mfg. Co., St. Louis, Mo. Paper; [illegible] × 7½ ins.; pp. 24; illustrated.

The material described is known as "granite rock wool," a fibrous material made from granite, and used in the form of cement, felt, etc., for boiler and pipe clothing, insulating refrigerator cars, filling between floors, and other purposes.

It is claimed to be composed as follows: Silica, 42.84%; aluminia, 1.40%; lime (Ca O), 51.74%; magnesia (Mg O), 2.75%; undetermined, 1.27%. There is no sulphuric acid, which is said to be present in non-conductors prepared from iron slag, and to cause corrosion of iron surfaces upon which they are used.

CONSTRUCTION NEWS.

CONDENSED LIST OF CONTRACTS PENDING WITH DATE OF OPENING BIDS.

Bids to be opened	Work.	Place.	See Eng. News.
Oct. 19.	Road,	Boston, Mass.	Oct. 12
	Advertised, Engineering News, Oct. 12.		
Oct. 19.	Jetty work, etc.	Wilmington, Del.	Sept. 21
	Advertised, Eng. News, Sept. 21 to Oct. 12.		
Oct. 20.	Pier,	New York, N. Y.	Oct. 12
Oct. 20.	Sweeping machines, etc.,	New York	Oct. 19
Oct. 21.	Army buildings,	Beaufort, S. C.	Oct. 19
Oct. 21.	Electric and water plants,	Casey, Ill.	Oct. 19
Oct. 21.	Brick paving,	Kansas City, Mo.	Oct. 19
Oct. 21.	Bonds,	Elyria, O.	Oct. 12
Oct. 21.	Water pipe,	Washington, D. C.	Oct. 12
	Advertised, Engineering News, Oct. 12.		
Oct. 21.	Water-works,	Berea, O.	Oct. 5
	Advertised, Eng. News, Oct. 5 and 12.		
Oct. 21.	Sewers,	Washington, D. C.	Oct. 5
	Advertised, Engineering News, Oct. 5.		
Oct. 21.	Dry-dock,	Philadelphia, Pa.	Sept. 28
Oct. 23.	Electric bonds,	Monroe, Mich.	Oct. 5
Oct. 23.	Bonds,	St. John, N. B.	Oct. 12
Oct. 23.	Plumbing work,	New York, N. Y.	Oct. 12
Oct. 23.	Mill buildings, etc.,	Richmond, Va.	Oct. 12
	Advertised, Engineering News, Oct. 12.		
Oct. 23.	Telegraph poles, etc.,	London, England	Oct. 12
Oct. 23.	Bonds,	Cohoes, N. Y.	Oct. 19
Oct. 23.	Retaining walls,	Newport News, Va.	Oct. 19
Oct. 23.	Artesian well,	Fort Greble, R. I.	Oct. 19
Oct. 23.	Heating, etc.,	New York, N. Y.	Oct. 19
Oct. 23.	Paving,	McKeesport, Pa.	Oct. 19
Oct. 23.	School bonds ($200,000),	Santa Ana, Cal.	Oct. 19
Oct. 24.	Garbage disposal plant,	Gloucester, Eng.	Oct. 19
Oct. 24.	Brick paving,	Kansas City, Mo.	Oct. 19
Oct. 24.	Bridges,	Philadelphia, Pa.	Oct. 19
Oct. 24.	Belgian paving,	Jersey City, N. J.	Oct. 19
Oct. 24.	Garbage disposal plant,	Louisville, Ky.	Oct. 19
Oct. 24.	Heating, etc.,	New Brighton (S. I.), N. Y.	Oct. 19
Oct. 24.	Sewers,	Elyria, O.	Oct. 19
Oct. 24.	Sewage disposal works,	Exmouth, England	Oct. 19
Oct. 24.	Railway (25 miles),	Houston, Tex.	Oct. 12
Oct. 24.	Electric plant,	Knightstown, Ind.	Oct. 12
Oct. 24.	Asylum building,	Canton, S. Dak.	Oct. 5
Oct. 24.	U. S. building,	Springfield, Mass.	Oct. 5
Oct. 24.	Dredging,	Penobscot River, Me.	Sept. 28
	Advertised, Eng. News, Sept. 28 to Oct. 19.		
Oct. 24.	Breakwater,	Sheboygan Harbor, Wis.	Sept. 28
	Advertised, Eng. News, Sept. 28 to Oct. 19.		
Oct. 24.	Sheathing, etc.,	Bluff Harbor, N. Zealand	Sept. 21
Oct. 24.	Electric railway plant,	Barking, England	Sept. 14
Oct. 25.	Road improvements,	Lisbon, O.	Sept. 28
Oct. 25.	Dredging, etc.,	Aransas Pass, Tex.	Sept. 28
	Advertised, Eng. News, Sept. 28 to Oct. 19.		
Oct. 25.	City hall building,	Pittsburg, Kan.	Oct. 5
Oct. 25.	Storage batteries, engines, etc.,	Tampa, Fla.	Oct. 12
	Advertised, Eng. News, Oct. 12 and 19.		
Oct. 25.	Electric pump,	Orillia, Ont.	Oct. 12
Oct. 25.	Building,	Harper's Ferry, W. Va.	Oct. 19
Oct. 25.	Macadamizing,	Kansas City, Mo.	Oct. 19
Oct. 25.	Electric plant,	Wigan, England	Oct. 19
Oct. 25.	Brick paving,	Newark, N. J.	Oct. 19
	Advertised, Engineering News, Oct. 19.		
Oct. 25.	Water tunnel,	Santa Barbara, Cal.	Oct. 19
Oct. 25.	Electric plant,	Greenport, N. Y.	Oct. 19
Oct. 25.	Piping and condenser,	Chicago, Ill.	Oct. 19
Oct. 25.	Railway supplies,	Llanelly, Wales.	Oct. 19
Oct. 26.	Bridge substructure,	Cleveland, O.	Oct. 5
Oct. 26.	Water department supplies,	New York	Oct. 19
Oct. 26.	Water mains, etc.,	Smiths Falls, Ont.	Oct. 12
	Advertised, Eng. News, Oct. 12 and 19.		
Oct. 26.	Bridge,	Fresno, Cal.	Oct. 12
Oct. 26.	Sewers, etc.,	Smiths Falls, Ont.	Oct. 12
	Advertised, Eng. News, Oct. 12 and 19.		
Oct. 26.	Army buildings,	Brooklyn, N. Y.	Oct. 12
Oct. 26.	Army buildings,	Fort Hamilton, N. Y.	Sept. 28
	Advertised, Eng. News, Sept. 28 to Oct. 19.		
Oct. 27.	Dredging,	Mystic River, Mass.	Sept. 28
	Advertised, Eng. News, Sept. 28 to Oct. 19.		
Oct. 27.	Bridge,	Indianapolis, Ind.	Oct. 5
Oct. 27.	Buildings,	West Point, N. Y.	Oct. 5
Oct. 27.	Bridges,	Huntington, Ind.	Oct. 12
Oct. 27.	Grading,	Cohoes, N. Y.	Oct. 19
Oct. 28.	Bridge,	Miamisburg, O.	Oct. 19
Oct. 28.	Boiler house,	Tacoma, Wash.	Oct. 12
Oct. 30.	Beacons,	Hawk Channel, Fla.	Oct. 5
	Advertised, Eng. News, Oct. 5 and 12.		
Oct. 30.	U. S. building,	Dubuque, Ia.	Oct. 5
Oct. 30.	Bonds,	Victoria, B. C.	Sept. 28
Oct. 30.	Railway construction,	Yucatan, Mex.	Aug. 31
Oct. 30.	Railway (70 miles),	Cape of Good Hope	Sept. 21
Oct. 30.	Sewerage system,	Wellsville, O.	Oct. 12
	Advertised, Engineering News, Oct. 12.		
Oct. 31.	University buildings,	Morgantown, W.Va.	Oct. 12
	Advertised, Eng. News, Oct. 12 to 26.		
Oct. 31.	Heating, etc.,	Buffalo, N. Y.	Sept. 28
	Advertised, Eng. News, Sept. 28 and Oct. 5.		
Oct. 31.	Well,	Chipping Camden, England	Oct. 19
Oct. 31.	Sewers,	Lake Bluff, Ill.	Oct. 19
	Advertised, Engineering News, Oct. 19.		
Oct. 31.	Light-house work,	Romer Shoal, N. Y.	Oct. 19
	Advertised, Eng. News, Oct. 19 and 26.		
Oct. 31.	Pumping plant,	Aylesbury, England	Oct. 19
Nov. 1.	Water-works,	Nicolaiev, Russia.	June 15
Nov. 1.	Protected cruisers,	Washington, D. C.	July 13
Nov. 1.	Library building plans,	Fort Worth, Tex.	Oct. 5

Nov. 1. Water supply, Dover, N. J. .....Oct. 5
Advertised, Eng. News, Oct. 5 and 12.
Nov. 1. School building, Chester, Pa.....Oct. 5
Nov. 1. Broken stone, Windsor, Ont. .....Oct. 5
Nov. 1. Machinery, New Orleans, La. .....Oct. 12
Nov. 2. Pumping engine, Martin's Ferry, O.....Oct. 5
Nov. 2. Dredging, St. Johns River, Fla. .....Oct. 5
Advertised, Eng. News, Oct. 5 to 26.
Nov. 3. Garbage crematory, Sidney, N.So. Wales. Aug. 17
Nov. 3. Jetty work, St. Johns River, Fla.....Oct. 5
Advertised, Eng. News, Oct. 5 to 26.
Nov. 3. Dredges, Montgomery, Ala. .....Oct. 5
Advertised, Eng. News, Oct. 5 to 26.
Nov. 3. Electric wiring, West Point, N. Y.....Oct. 5
Advertised, Eng. News, Oct. 5 to 26.
Nov. 3. Sewers, Alexandria, Ind. .....Oct. 12
Advertised, Eng. News, Oct. 12 and 19.
Nov. 3. Fire hose, Lansdowne, Pa.....Oct. 12
Nov. 3. Sewers, Warsaw, Ind. .....Oct. 12
Advertised, Eng. News, Oct. 12 to 26.
Nov. 4. Cement walks, etc., Danville, Ind.....Oct. 12
Nov. 4. Sewers, and paving, Roanoke, Va. .....Oct. 19
Nov. 6. Bridge, Madera, Cal. .....Oct. 19
Nov. 6. Paving, Elyria, O. .....Oct. 19
Nov. 6. Court house bonds ($40,000), Selma, Ala. ..Oct. 19
Nov. 6. Electric franchise, Martinez, Cal. .....Oct. 5
Nov. 6. Water supply, Helena, Mont.....Sept. 21
Advertised, Eng. News, Sept. 21 to Oct. 12.
Nov. 7. Electric machinery, Riverside, Cal. .....Oct. 5
Nov. 7. Infirmary buildings, London, Eng. .....Oct. 12
Nov. 7. Power franchise, Marysville, Cal.....Oct. 12
Nov. 8. Machine tools, Port Adelaide, So. Australia. Oct. 12
Nov. 8. Bridge, Salinas, Cal. .....Oct. 19
Nov. 8. Water supply, Highlands, Ky.....Oct. 19
Nov. 9. School building, Sacaton, Ariz.....Oct. 19
Nov. 10. Stone building, Victoria, B. C. .....Oct. 19
Nov. 10. Sewage disposal plant, Darton, England...Oct. 12
Nov. 10. Bridge bonds, Cleveland, O. .....Oct. 12
Nov. 13. Dredging, Boston, Mass.....Oct. 12
Advertised, Eng. News, Oct. 12 to Nov. 2.
Nov. 13. Electric wiring, West Point, N. Y.....Oct. 19
Advertised, Eng. News, Oct. 19 to Nov. 2.
Nov. 13. Canal, Chicago, Ill. .....Oct. 19
Advertised, Eng. News, Oct. 19 to Nov. 9.
Nov. 14. Dredging, Montgomery, Ala. .....Oct. 19
Advertised, Eng. News, Oct. 19 to Nov. 9.
Nov. 14. Dredging, Apalachicola Bay, Fla.....Oct. 19
Advertised, Eng. News, Oct. 19 to Nov. 9.
Nov. 14. Bridge, Alameda, Cal. .....Sept. 21
Advertised, Eng. News, Sept. 21 to Oct. 12.
Nov. 15. Dredging, Galveston, Tex. .....Oct. 19
Advertised, Eng. News, Oct. 19 to Nov. 9.
Nov. 15. Levee, New Orleans, La. .....Oct. 19
Nov. 16. Plumbing, West Point, N. Y. .....Oct. 19
Advertised, Eng. News, Oct. 19 to Nov. 9.
Nov. 17. Reservoir work, Boston, Mass.....Oct. 19
Advertised, Engineering News, Oct. 19.
Nov. 22. Electric lighting, Norfolk, Va. .....Oct. 19
Advertised, Eng. News, Oct. 19 to Nov. 16.
Nov. 27. Court house, Atlanta, Ga.....Oct. 5
Nov. 28. Dredging, Everett Harbor, Wash.....Oct. 5
Advertised, Eng. News, Oct. 5 to Nov. 16.
Nov. 28. Court house, Pipestone, Minn. .....Sept. 21
Nov. 30. Market plans, Nassau, Bahamas.....Sept. 7
Dec. 5. Church building, Warsaw, N. Dak. .....Oct. 5
Dec. 14. Ferry, New Orleans, La. .....Sept. 21
Dec. 19. Quays, etc., Alexandria, Egypt. .....Sept. 14
Jan. 4. Railway (200 miles), Ceylon .....Sept. 7
Feb. 15. Water-works, Tampico, Mex. .....Oct. 12
Feb. 15. Sewerage system, Tampico, Mexico.....Oct. 12
No date. Cyanide mill, Cripple Creek, Colo.....Oct. 12
" . Bridges, Indianapolis, Ind. .....Oct. 12
No date. Asphalt paving, Mexico, Mexico. .....Oct. 19

RAILWAYS.

ABBOTSFORD & NORTHEASTERN.—A. C. Rietbrock, Audr., Milwaukee, Wis., informs us that W. H. Upsham, Marshfield, Wis., is building the extension of this line from Athens, Wis., to a point 12 miles to the north. Fred. Rietbrock, Pres., Milwaukee.

ALABAMA & FLORIDA.—E. L. More, Pres., River Falls, Ala., informs us that R. M. Quigley & Co., St. Louis, Mo., who have the contract for building this line from Georgiana to Andalusia, Ala., 33 miles, will complete the work by Nov. 15. An extension from Andalusia to Geneva is also projected. John Marston, Jr., Ch. Engr., River Falls.

BANGOR & AROOSTOOK.—Reports from Caribou, Me., state that grading has been completed for the new extension of this line from Caribou to Van Buren, 34 miles, and track laid for 20 miles. There are seven bridges along the route, the only large one being a 125-ft. bridge across the Madawaska River. The false work on this is up and the masonry work is now under way. Very little rock work, but much boggy ground, has been met with. Stations are about completed, and a turntable, coal shed and roundhouse are being erected at Van Buren. About 600 men and 90 teams are at present employed by J. B. Carter, the contractor. M. Burpee, Ch. Engr., Houlton, Me.

CAPE BRETON RY. EXTENSION CO.—Plans are being perfected, according to reports, for the construction of a railway from Louisburg, on the east coast of Cape Breton Island, N. S., to Hawkesburg, on the Straits of Canso, 86 miles. By means of this line and a system of fast mail steamships it is proposed to save 48 hours in the distribution of foreign mail to the United States and Canada. Joseph Shute, Atlantic City, N. J.; Herbert Dix, Stanwick, N. J., and John Crump, New York, are said to be interested.

CENTRAL R. R. OF NEW JERSEY.—William Haelig, Bound Brook, N. J., has begun grading for the roadbed of two miles of track to connect his quarry with this railway. This will be the only very hard trap-rock quarry directly on the road. A crushing plant with a daily capacity of 1,500 tons will be erected at once.

CHATTANOOGA SOUTHERN.—Press reports state that this system, running from Chattanooga, Tenn., to Gadsden, 90 miles, will be extended from Gadsden to Montgomery, Ala., 125 miles, at a cost of about $1,500,000. M. F. Bonzano, Gen. Mgr., Chattanooga.

CHILKOOT R. R. & TRANSPORT CO.—O. E. Darling, Acting Secy., Tacoma, Wash., informs us that this company, which was organized to construct a railway from Crater Lake to Lake Linden, Northwest Territory, 10 miles, has sold its property to the White Pass & Yukon Ry. Co., S. H. Graves, Pres., Chamber of Commerce Bldg., Chicago, Ill.

EVANSVILLE, SUBURBAN & NEWBURGH.—Gus. Muhlhausen, Mgr., Evansville, Ind., informs us that propositions for granting subsidies to this company will be voted upon Nov. 7. Surveys will then be made and contracts let by Jan. 1. It is proposed to build 25 miles of steam railway. F. W. Cook, Pres., Evansville.

GEORGIA.—Price & Miller, Birmingham, Ala., are reported to have been awarded the contract for constructing a line of railway between Cave Spring and Cedartown, Ga., in order to develop mineral lands owned by De Bardleben Bros.

GULF, BEAUMONT & NORTHERN.—Contracts are about to be let, according to reports, for constructing a 30-mile extension towards Waskom, 135 miles from Rogan, via Jasper, San Augustine, Center and Tenaha, Tex. John H. Kirby, Pres., Houston, Tex.; Jas. F. Weed, Ch. Engr., Beaumont, Tex.

INDIA.—R. F. Patterson, U. S. Consul-General at Calcutta, India, reports that improvements are being made on the railways now open for traffic, to which he would call the attention of American manufacturers of locomotives, bridges, steel rails, cars, and other railway supplies, as it has been demonstrated that they can compete successfully for contracts for such supplies. Last year 7,000 tons of steel rails were delivered in Calcutta from the United States, and now the Baldwin Locomotive Works has a contract for ten freight engines for the Bengal State Ry., besides three or four passenger engines for the Bengal Central Ry.; the Burma Ry., the Bombay Baroda and the Central India Rys. have also made such purchases. To ascertain what supplies are required and when contracts will be let, address Sir A. M. Rendel & Son, Consulting Engrs., 8 Great George St., Westminster, S. W., London, for Indian State Rys., East Indian Ry., Bengal & Northwestern Ry., Southern Mahratta Ry. and the Bengal Central Ry.; and also Sir George B. Bruce, Consulting Engr., 3 Victoria St., London, S. W., for Great Indian Peninsular Ry., Indian Midland Ry., and South Indian Ry.

ITALY.—The Italian Government has agreed with the Mediterranean & Meridional Rys. to supply the lines with new rolling stock, to cost about 43,000,000 lire ($8,170,000). The railway companies are to provide the money, the state paying them 4% interest on the amounts advanced, plus an annual depreciation quota for that portion of the stock which must be renewed at regular intervals. As the gross receipts of the lines are divided at the rate of 44% to the state and 56% to the companies, the latter will bear more than half the charge. At the expiration of the running concession the state will buy back this new rolling stock at cost price, less depreciation quota. The stock deemed necessary for immediate use consists of 111 locomotives, 4 automobiles, 458 passenger cars, 56 baggage cars, and 3,050 freight cars. Half of the order will be placed exclusively with home contractors, and for the other half tenders will be accepted from foreign and Italian firms alike.

KNOXVILLE & BRISTOL.—Work was commenced Oct. 2 in Knox and Hawkins counties, Tenn., on the construction of this proposed railway. The general contract is held by the Knoxville Construction Co., which has sublet part of the work to Griffith & Kellar, Knoxville, Tenn. Harry J. Braker, Pres., 20 Broad St., New York; H. M. Aiken, Gen. Mgr., Morristown, Tenn.

LOCKHART MILLS.—We are informed that R. C. Strother, Jonesville, S. C., is the principal contractor for this 15 miles of railway from Lockhart Mills to the Spartanburg, Union & Columbia division of the Southern Ry. Other contractors are G. W. Leftwich, L. G. Campbell and W. J. Neely. Six miles have been graded. J. C. Cary, Pres.; Albert Only, Ch. Engr., both of Lockhart, S. C.

MEMPHIS & CHATTANOOGA.—F. P. Poston, Memphis, Tenn., an incorporator, informs us that three routes have been surveyed, but no selection made, for this new line between Stevenson, Ala., and Chattanooga, Tenn., 45 miles. Right of way agents began work Oct. 5. The capital stock of $250,000 has been secured. Contracts will be let in 60 days. Officers had not been selected on Oct. 9, as organization was not yet completed under charter.

MEXICO.—President Diaz is reported to have granted a concession to the Pacific Coast Coal Co. for a railway from Guayamas, on the Gulf of California, to San Marcial, Sonora, 65 miles, penetrating a rich coal district. W. H. Ingham, Pres., Philadelphia, Pa.

MISSING LINK.—John W. Irwin, Chattanooga, Tenn., is said to have been engaged to make the preliminary survey for this proposed line from Chattanooga to Walhalla, S. C., via Ringgold, Ga.; Cohutta Springs, Blue Ridge, Clayton and Cheehero, S. C. W. L. Albright, Ottawa, Ohio, is chief promoter.

MISSOURI.—The St. Louis county court has granted a 50-year franchise to the Central Belt Electric R. R. Co. to construct a steam or electric belt railway around St. Louis, Mo., from the mouth of the River Des Peres to the Chain of Rocks. Henry Wagoner and Aiken Welch, of St. Louis, are interested.

MORENCI & SOUTHERN.—This company has been incorporated in Arizona by James Douglas, William E. Dodge, Cleveland H. Dodge and other members of Phelps, Dodge & Co., of New York, owners of the Copper Queen mine at Bisbee, Ariz., and the Detroit mine at Morenci, Ariz. The proposed road will connect with the Arizona & New Mexico Ry. at Guthrie, and will be 20 miles in length at first.

MOUNT PLEASANT, TENNESSEE RIVER & MILAN.—This company has filed its charter in Columbia, Tenn. It is proposed to build from Mount Pleasant to Milan, Tenn., about 100 miles. J. H. Cunningham, J. H. Fussell and A. M. Hughes are incorporators.

NEW YORK CENTRAL & HUDSON RIVER.—Reports state that about 200 men are employed on improvements for this system at Ravenna, N. Y., including new coal pockets, a 700-ft. coal trestle to cost about $40,000 and a new 20-stall roundhouse. An entire new yard will also be built and 18 miles of new track laid. W. J. Wilgus, Ch. Engr., New York.

NEW ZEALAND.—The minister for railways, in his annual statement, announces that double lines of rail from Wellington to the Hutt, Dunedin to Mosgiel, Aukland to Penrose, Dunedin to Port Chalmers, and Milton to Clarksville, will soon have to be laid, at a cost of from $2,500,000 to $3,000,000. He also proposes to expend $10,000,000 within the next five years in providing additional rolling stock and station accommodation. The schedule includes $600,000 for building and strengthening bridges; $300,000 for signals and telegraphs; $800,000 for locomotives; $400,000 for various rolling stock, traveling cranes, etc.; $125,000 for workshop, machinery and electric lighting, and $1,200,000 for automatic brakes for the new rolling stock. Parliament will be asked to sanction the expenditure of $1,125,000 during the present year.

OHIO & KENTUCKY.—M. Lally, Detroit, Mich., is reported to have been awarded the contract for grading a part of this new line from Jackson, Ky., into the rich coal and timber district of Eastern Kentucky, 26 miles distant, as advertised in Engineering News. Address P. O. Box 366, Lexington, Ky.

PENNSYLVANIA.—Reports state that more than two-thirds of the grading and filling has been completed on this line between Irwin and Jeannette, Pa., and two large stone arches completed. In order to eliminate the curves on this part of the road huge gaps have been cut through the rocky hills and depressions in the hollows filled. By Nov. 1 tracklaying and ballasting will be under way, and the work on the new stations and train sheds will be progressing. The new line will make the Pennsylvania R. R. main tracks almost straight for many miles. W. H. Brown, Ch. Engr., Philadelphia, Pa.

POINT PLEASANT, BUCKHANNON & TYGART'S VALLEY.—The directors of this company have adopted the surveys made for a line from Buckhannon, W. Va., to the mouth of the Buckhannon River to open up a large coal field recently bought by Major Shaw, Baltimore, Md. Work is expected to begin in November.

POTOSI & RIO VERDE.—T. W. Parvin, Ch. Engr., San Luis Potosi, Mexico, informs us that 40 kilos. have been built, the first 60 kilos. have been located and preliminary surveys made for 95 kilos. for this line from La Morena to Rio Verde, via Alverez, Santa Caterina and Morajas, 180 kilos. (111.8 miles). The right of way has been secured over that portion which is located, and the capital has been secured. No contracts have been let, all work being done under the chief engineer. Robert S. Towne, Pres., 27 William St., New York.

SABINE HARBOR & NORTHERN.—J. W. Brownlee, Secy., Sabine, Tex., informs us that the surveys have been made, the right of way obtained and capital secured for this proposed railway from Sabine to Port Arthur, Tex., 15 miles. Charles Sutter, Pres., St. Louis, Mo.; G. F. Stickney, Ch. Engr., Sabine.

ST. LOUIS, ALTON & CARONDELET.—This company has been incorporated in Illinois, with a capital stock of $100,000, to build in Madison county, Ill. Chas. T. Westlake, Granite City, Madison county, Ill.; Glenn G. Allen, Madison, Ill., and R. J. Whitney, Alton, Ill., are incorporators.

SOUTHWESTERN ARKANSAS & INDIAN TERRITORY.—This railway is reported to have been sold Oct. 11 for $135,000 to William Grayson and N. M. McLeod, officers of the Arkadelphia Lumber Co.

TRANS-SIBERIAN.—Official reports state that the work on the Krasnojarsk-Irkutsk section is almost finished, and the section was early in the year handed over to the board of state railways. On the Trans-Baikal road the preliminary work is over; a number of large bridges over the rivers Urulga, Tatacha, Uda, Schdanga, Tschita and Kugenga are approaching completion. A distance of 250 miles has been railed and over half of the rails needed conveyed to the places where they will be wanted. There have been constructed about 373 stations and buildings, a number of large work shops, 58 pumping stations, etc. On the Mertschinsk-Srjetentsk section the traffic has already been opened. The works on the Irkutsk-Baikal section are completed and the line handed over to the government. From Kaaldaloro to the Chinese frontier large forest tracts have been cleared, stone bridges built over the rivers and new telegraph lines opened for traffic. The ice-breaking ferry on the Baikal Lake has made its trial trips, and a large floating dock on that lake, as well as the necessary docks and harbor installations, is about completed. At Vladivostock a large stone quay has been constructed, and huge warehouses are being built with improved appliances for loading and discharging.

WALES.—Bids are asked by the Llanelly Harbour & Burry Navigation Commission until Oct. 25 for the supply and delivery of 124 tons of double-headed steel rails (Great Western Ry. section); 200 to 400 tons of flat-bottom 60-lb. steel rails; railway sleepers; two saddle-tank engines, 4 wheels coupled, 7 ft. wheel base, cylinders 14-in. or 16-in.; two double weighbridges, and one single weighbridge; 4 wrought-iron, cast-iron, or steel turntables, 14 ft. in diameter, etc. For further particulars address Colin P. Fowler, Engr., Harbour Office, Llanelly.

WESTERN KENTUCKY.—This company was incorporated in Kentucky Oct. 9 with a capital stock of $100,000 to construct a railway from Blackford, on the Illinois Central, to Dixon, via Clay and Lisman, Ky., 17 miles. C. E. Holmes, New York; D. H. Clark, New Orleans, La., and D. V. Baker, Lisman, Ky., are directors.

STREET AND ELECTRIC RAILWAYS.

BELLOWS FALLS, VT.—We are informed that C. W. Blakeslee & Sons, New Haven, Conn., have received the contract for building this new line complete from Bellows Falls to Rockingham, via Westminster, 6½ miles, and that work was commenced Oct. 6 near Gazeville. It is intended to finish the grading, track-laying, setting of poles and masonry work this fall, so as to place the line in operation early next spring. Reports state that power will be furnished by the Bellows Falls Electric Light Co., which will probably have to rebuild its plant this winter.

MONTVILLE, CONN.—It is reported that grading is in progress by Contractor Fitzgerald on the Montville Electric Ry. About 1¼ miles of rails have been shipped from Shelton, Pa., to Thamesville, and track-laying is expected to begin soon.

LIBERTY, N. Y.—Chas. H. Nichols, Ch. Engr., of Liberty & Jeffersonville Electric R. R., Liberty, informs us that the right of way has been obtained and the survey is well under way for this proposed freight and passenger electric railway from Liberty to Jeffersonville, via White Sulphur Springs and Youngsville, 12 miles. Contracts are to be let at once. The maximum grade will be 3%. C. N. Fuller, Supt., Liberty.

NEW YORK, N. Y.—Surveys have been completed for an extension of the Manhattan Ry. (Elevated) from its terminus at 177th St. and 3d Ave. to Bedford Park, a distance of two miles. Reports state that specifications are now being prepared on which bids will in course of time be asked. John Waterhouse, Ch. Engr., 195 Broadway.

PERTH AMBOY, N. J.—It is reported that work was to have been commenced Oct. 16 on the new trolley line to be built by the Perth Amboy Ry. Co. The Lewissohn Bros., Perth Amboy, are interested.

VINELAND, N. J.—The American Ry. Union has asked for permission to build in this borough. It is proposed to connect Bridgeton, Millville and Vineland by a trolley line.

FREEMANSBURG, PA.—Pascoe & Crilly, Allentown, Pa., are reported to have just placed 150 laborers at work on the new trolley line from Northampton Heights to Freemansburg.

JOHNSTOWN, PA.—Thos J. Keenan, Jr., is reported to have been awarded the contract for building two miles of track to Moxham, for the Johnstown & Somerset Ry. Work is to begin at once.

MEDIA, PA.—The Delaware County & Philadelphia Electric Ry., now opening a line between Angora and Lenni, was granted a franchise by the supervisors of Middletown township Oct. 9 to extend its line from Media to Lenni, five miles. J. S. Austin, Pres., Philadelphia.

WEST LIBERTY, PA.—The West Liberty St. Ry. Co. was incorporated Oct. 13, with a capital stock of $12,000, to construct an electric street railway between Pittsburg and West Liberty. Harry Moore, Pres., Pittsburg; A. C. Wettengel, Elliott Borough, Pa., and George Hook, Jr., Bellevue, Pa., are incorporators.

CHESTERTOWN, MD.—Harris & Damon, Engrs., Darby, Pa., are reported to have been awarded the contract for constructing a trolley line from Bombay Hook, Del., to Chestertown.

CHARLESTON, W. VA.—The Kanawha Electric Co., composed of J. Q. Dickinson, Pres. of Kanawha Valley Bank, Charleston, and Fayette county parties, was granted permission by the Kanawha County Court Oct. 13 to build an electric railway from Coalburg, in this county, to Mount Carbon, Fayette county.

SPRINGFIELD, O.—Anthony Poss is reported to have been awarded the contract for constructing a new street car barn for the Springfield Ry. Co., to be completed by Dec. 1. S. L. Nelson, Mgr.

TOLEDO, O.—It is reported that 15 miles of grading has been completed and ties and rails distributed along 12 miles of the new Toledo, Fremont & Norwalk Electric Ry., proposed to run to Norwalk, 60 miles. The masonry for bridges and culverts between Woodville and Fremont will be ready soon. The Westinghouse, Church, Kerr Co., Detroit, Mich., is also said to have commenced the construction of the power house at Fremont. Riggs & Sherman, Engrs., The Nasby, Toledo.

YOUNGSTOWN, O.—The Youngstown & Sharon St. Ry. Co. has been incorporated, with a capital stock of $200,000, to construct an electric railway by Sharon, by John C. Whitla and F. W. Patterson, of Pittsburg, Pa., and others.

DETROIT, MICH.—Thos. Muir & Son, 31 Larned St., Detroit, inform us that they are projecting the construction of the Detroit, Pike's Peak & Ann Arbor Ry. from this city to Ann Arbor, about 34 miles. Arrangements are being made for obtaining the right of way, and an option is held on a valuable mill site with water power and dam. They are figuring on compressed air.

SAGINAW, MICH.—Surveys are said to be in progress for the proposed Saginaw & Frankenmuth Electric Ry.

PANA, ILL.—The Pana Modern Electric Light & Power St. Ry. Co. was licensed to increase its capital stock from $50,000 to $100,000.

MILWAUKEE, WIS.—Surveys have been made and one-third of the right of way obtained for the Milwaukee & Lake Geneva Electric Ry. Chauncey Sheldon, Pres.; Gustav J. Riemer, Vice-Pres., both of Milwaukee.

OMAHA, NEB.—Work is progressing rapidly on the Omaha, Council Bluffs & Suburban Ry. Grading, leveling and track-laying is now under way towards Council Bluffs. Bids will soon be asked for constructing a new power house, 75 × 90 ft., and a car barn, 75 × 190 ft., with six tracks. C. R. Hannan, Omaha, is interested.

ST. LOUIS, MO.—The St. Louis, Clayton & Western Ry. Co. has been incorporated with a capital stock of $2,000, to construct a street railway in St. Louis county. L. G. McNair, F. R. Harris and L. W. Day are incorporators.

KERN CITY, CAL.—H. F. William's bid of 3% of the gross proceeds for a franchise to build and operate an electric street railway in this city has been accepted.

LOS ANGELES, CAL.—H. J. Whitley, G. J. Griffith and P. J. Beveridge are interested in the construction of an electric line from this city to Santa Monica, via Hollywood.

SARNIA, ONT.—The Sarnia St. Ry. Co. has decided to change its 4½ miles of horse car lines to an electric system. H. W. Mills, Treas. and Mgr.

HAVANA, CUBA.—Reports state that the Laclede Car Co., St. Louis, Mo., has received the contract for supplying 120 street cars for the Havana Electric Ry. Co. H. J. Greenwood, formerly of Pittsburg, Pa., is manager of the Havana company.

DEVONPORT, ENGLAND.—Press reports state that the contract for the overhead work on a 3-mile trolley line in this town has been awarded to a London engineering firm, which will fill the contract in the United States.

BUENOS AYRES, ARGENTINA.—The New York "Commercial" has the following information concerning street railways in this city: In addition to the proposed conversion of the existing horse-car lines to electric traction, Buenos Ayres is also to have a complete system of underground electric railways, in many respects similar to the Boston subway, concessions having been obtained and capital secured. It will be built by Charles Bright & Co., Ltd., for the Metropolitan Ry. Co. of Buenos Ayres. The same firm is now engaged in the construction of a street railway system for the Buenos Ayres Electric Tramway Co., for which orders aggregating $500,000 have already been placed here for material. The length of the road will be 1¼ miles under the main avenue. Application for a concession for a 2-mile addition has been made. The tramway line is being built of 87-lb., 9-in. girder rails. About 40 miles of horse tramways in Montevideo, Uruguay, the Este, Reducto and Pocitos lines, have also been purchased by Mr. Bright, with a view to equipping them with electricity.

SHIOGAMA, JAPAN.—The Rikuu Electric Tramway Co. has recently been organized, with a capital stock of 1,200,000 yen ($600,000), to construct a line from Shiogama to Sendai, to connect the government Yamagata line and the Nippon Ry.

ELECTRIC LIGHT AND POWER.

BETHEL, ME.—E. C. Bowler is reported as interested in the company which proposes to build a plant.

DERBY, CONN.—Reports state that soundings have been begun for a rock-bottom foundation for the new dam to be built across the Housatonic River, near Zoar Bridge, five miles above this city, by the Housatonic Lighting & Power Co. This company proposes to generate electricity to be conveyed to all the cities of western Connecticut. The work of construction will be pushed in an effort to complete it by next fall.

WATERVILLE, CONN.—The question of lighting the streets is reported as being considered.

GREENPORT, N. Y.—Bids are asked until Oct. 25 for furnishing the machinery and for constructing a plant. C. J. Southard, Engr., 1274 Bergen St., Brooklyn, N. Y.; G. H. Corwin, Jr., Village Clk.

NIAGARA FALLS, N. Y.—Reports state that the Niagara Falls Power Co. will soon build a plant to furnish power to small buildings.

NYACK, N. Y.—The board of supervisors has granted a franchise to the Rockland Light & Power Co. to erect a pole line throughout the county. S. R. Bradley, Pres.

OSWEGO, N. Y.—The Oswego Water-Works Co. has purchased certain land at the dam on which it is proposed to erect a power plant.

PLATTSBURG, N. Y.—The Plattsburg Light, Heat & Power Co. has increased its capital stock from $125,000 to $175,000. Albert E. Reynolds and Harry G. Runkle are interested.

WEST POINT, N. Y.—Bids are asked until Nov. 13 for furnishing and putting in place electric lighting fixtures, for Memorial Hall, as stated in our advertising columns. Malvern-Hill Barnum, Q. M.

CARROLLTOWN, PA.—The question of putting in a plant is being considered, according to reports.

LYKENS, PA.—Reports state that the controlling stock of the Williams Valley Light, Heat & Power Co. and the Williams Valley Water Co. has been disposed of to P. B. Shaw and Hess, of Williamsport, Pa. The companies were organized in 1892. Since that time light for Lykens, Wiconisco and Williamstown, and water for Williamstown, has been furnished by the respective companies.

NEW WILMINGTON, PA.—A committee from the council has been appointed to investigate the question of a municipal plant.

PERKASIE, PA.—J. F. Buchanan & Co., Philadelphia, have been awarded the contract for a plant at $11,500.

PHILADELPHIA, PA.—Additions are to be made to the plant of the Suburban Electric Light Co.'s plant in Tacony.

PITTSBURG, PA.—Geo. R. Mathieu, East End, Pittsburg, is reported to have been awarded the contract for a plant at the new pump factory of the Epping Carpenter Co.

HAVRE DE GRACE, MD.—We are informed that the following contracts have been let for building the plant of the Havre de Grace Electric Light Co.: Building, E. S. Sentman, Havre de Grace; engines and boilers, Wallace Stebbins & Sons, Baltimore; dynamos, etc., Westinghouse Electric & Mfg. Co., Pittsburg. W. L. Plack, Arch. and Engr., 1403 Filbert St., Philadelphia; J. H. Reckford, Mgr.

NORFOLK, VA.—Bids are asked until Nov. 22 for electric lighting for three years from Sept. 1, 1900, as stated in our advertising columns. J. A. Ridgwell, Chn. Com., Common Council; E. L. Mayer, Chn. Com., Select Council.

PETERSBURG, VA.—The Upper Appomattox Co. has leased its property for a term of 99 years to the South Side Ry. & Development Co. The power company has been furnishing light to several places.

BRIDGEPORT, W. VA.—The local electric light company has decided to make improvements to its plant to cost about $5,000, according to reports.

PARKERSBURG, W. VA.—Reports state that the Parkersburg Mill Co. proposes to install a plant.

ASHEVILLE, N. C.—Ladshaw & Ladshaw, Pacolet, S. C., who are reported to have secured the contract for developing the power at the Hominy Creek Shoals, near this place, write that the notice is premature.

KERNERSVILLE, N. C.—J. F. Kerner, Secy. and Treas. Southern Woollen Mills, writes us that estimates are wanted on lighting a 3-story mill, 40 × 80 ft.

WASHINGTON, GA.—L. L. Stephenson, of Elberton, Ga., is reported to have received the contract for the power house for the light plant.

UNIONTOWN, ALA.—Edward J. O'Beirne, Chinchuba, La., is reported to have been awarded contracts for plants in Union town to cost $13,990, with water-works, in Summit, Miss., at $7,500, and in Durant, Miss., at $9,449.

KISSIMMEE, FLA.—W. J. Sears, Jr., Mayor, writes us that estimates are wanted for a complete plant and water-works. The plant is to have a capacity for 10 arc and 500 incandescent lights. Population, 1,200.

TUPELO, MISS.—Reports state that bids will soon be wanted by J. W. Hoyle for a plant to cost about $7,000.

EAST LIVERPOOL, O.—The East Liverpool St. Ry. Co. is reported to have purchased the plant belonging to the Ceramic City Light Co. It is also stated that Chas. Smith, late Pres. Ohio Valley Gas Co., will build a plant.

GIRARD, O.—Camp, Shields & Krehl, who have the contract for constructing works, propose to put in a light plant, according to reports.

NORWALK, O.—The question of building a municipal plant is being considered, according to reports.

MARQUETTE, MICH.—Pearce & Richardson have submitted a report on the proposed improvements to the plant. D. Harrington, Chn. Com.

WYANDOTTE, MICH.—The question of extending the city plant is being considered. Address Aldermen Kiley, Welch and Clark.

CASEY, ILL.—Bids are asked until 2 p. m., Oct. 21, for constructing a plant and water-works. John J. Hainsworth, Engr., Indianapolis; Geo. Garner, Clk.; Garrett Wall, Mayor.

CHICAGO, ILL.—Bids are asked until 11 a. m. Oct. 25 for a system of piping and a condenser for the Robt. A. Waller electric plant. Edward B. Elliott, City Electrician, City Hall.

MORRIS, ILL.—A new company is reported to have been organized to purchase the plant and improve it. J. H. Pattison and F. B. Handwerk may be able to give information.

TOLEDO, ILL.—The proposed plant will have a 100-HP. engine, a 600-light dynamo, 16-c. p.; 25-light dynamo, 2,000 c. p., etc. Address T. C. Reed.

COUNCIL BLUFFS, IA.—The aldermen have voted to ask for new bids for electric lighting for five, ten or 15 years. Address Alderman Johnson.

CRESCO, IA.—C. F. Freehauf, West Union, Ia., is reported to have been granted a 20-year franchise for a plant.

MARENGO, IA.—An election will be held Oct. 27 to vote on the question of extending the franchise of the Marengo Electric Light & Power Co. for ten years.

OSCEOLA, IA.—The question of issuing bonds for a plant and water-works to cost $45,000 will soon be voted upon, according to reports.

AUSTIN, MINN.—It is proposed to build a plant to cost $20,000, according to reports.

PELICAN FALLS, MINN.—A. B. Kerlin, West Superior, Wis., writes us that no steps have yet been taken towards putting in a plant on account of the council refusing to consider the matter of street lighting until fire protection is provided for. Mr. Kerlin is also interested in proposed plants in other places.

HILLSBORO, N. DAK.—F. L. Goodman, Mayor, writes us that the question of issuing bonds for a plant and water-works will be voted upon Nov. 14. Population, 1,600.

ARKADELPHIA, ARK.—The council has adopted a resolution in favor of municipal ownership of the plant and water-works.

LITTLE ROCK, ARK.—The committee has submitted a report on enlarging the plant at a cost of about $150,000. A. H. Beeler, Chn., and Louis Volmer, are on the committee.

RENO, NEV.—We are informed that no contracts have yet been let by the New Power & Transportation Co. for the proposed plant. The power will be taken from the canyon, 12 miles east of here. Plans and surveys are not yet completed. The plant will consist of a dam 24 ft. high, a ditch seven miles long, with a fall of 135 ft. Power will be furnished to the Comstock, Pyramid, Peavine and Olinghouse mines, varying from eight to 24 miles distance. Total power to be developed, 15,000 HP. There will also be power furnished to pump water for irrigation. W. G. Caffrey, Engr., Reno; Geo. D. Burton, Pres., 144 Lincoln St., Boston, Mass.

GRANGEVILLE, CAL.—It is proposed to build a plant to have a capacity for 500 lights. D. G. Van Buren is interested.

LIVERMORE, CAL.—Reports state that the owners of the Tesla coal properties near Livermore propose to put in an electric light and power plant. The plant will be located in Corral Hollow, about nine miles from here.

QUINCY, CAL.—D. M. De Long and B. Schneider are reported as interested in a proposed plant for this town.

VENTURA, CAL.—It is proposed to construct a plant and water-works at a cost of $80,000, according to reports. Address City Trustees Sudden and Lewis.

VISALIA, CAL.—Reports state that a Los Angeles syndicate has made the preliminary surveys for a power project, by which power will be transmitted from the south fork of Kern River to Los Angeles, a distance of about 125 miles. The syndicate has made application to the government for a franchise to build a reservoir in the mountains, and rights of way for the flume line to the site of the proposed power house. It is proposed to convert the Monache Meadows into a reservoir, carry the water by a flume five or six miles long, into the power house, giving the water about 700 ft. fall.

MINE CENTRE, ONT.—J. J. Durage, Civil Engr., West Superior, Wis., writes us as following regarding the proposed power plant on the River Seine, noted in our issue of last week: The improvement contemplated is to be located on the River Seine, Ont., about 19 miles above Mine Centre, in the gold district known as the Lower Seine, in the Rainy River District. The work is to be undertaken by an English syndicate, which also will work the mines of the American-Canadian Gold Mining Co., with Col. J. S. Hillyer, of London, England, as President. There are already some 2,500 steam HP. in action, but with the installation of 200 stamps on the property known as Alice A, owned by the above company, a water power will be put in operation at Alice A Falls to supply direct power for reduction works at the falls and electricity to the mines in the vicinity. The computations give about 16,000 HP., all of which will be utilized. The plans for the dams, flumes, etc., are all finished and approved by the Ontario government, but the electric part of the problem is now undergoing the routine of office. Operations will commence about Dec. 1, and the work to be finished in 1900. No contracts have been let as yet for anything. The syndicate intends to expend some $500,000 for hydraulic, electric and mining machinery. Geo. H. Hillyer, Vice-Pres. American-Canadian Gold Mining Co., Duluth, Minn., is also interested.

WIGAN, ENGLAND.—Bids are asked until Oct. 25 for furnishing materials for a plant. H. Collings Bishop, Elec. Engr.; J. J. Charnock, Town Clk.

ST. PETERSBURG, RUSSIA.—Reports state that Wossidlo & Co., St. Petersburg, are purchasing electrical machinery in this country. It is also said that there is a large demand for electrical apparatus in Moscow.

WARSAW, RUSSIA.—The municipality is reported as wanting bids for electric lighting in the market hall, building freezing chambers, etc.

NEW COMPANIES.—Roachdale Electric Light & Telephone Co., Roachdale, Ind.; $5,000; W. M. Bedinger, C. T. Loring.

Philadelphia Electric Co., Philadelphia; $25,000,000; P. A. B. Widener, Wm. L. Elkins, Wm. F. Harrity.

Norfolk Electric Light & Power Co., Medway, Mass.; $50,000; Thos. E. Grover, Pres., Canton, Mass.; Judge Fairbanks, Gen. Mgr. and Clk., Medway, Mass.

Jeffersonville Light & Water Co., Jeffersonville, Ind.; $5,000; J. C. Knight, L. A. Irens.

Delaware Electric Co., Dover, Del.; $200,000; James F. Morrison, Baltimore, Md.; Chas. W. Cullen, Georgetown, Del.; Thos. Curry, Greenwood, Del.

Cold Spring Light, Heat & Power Co., Cold Spring, N. Y.; $20,000; S. L. Barret, A. S. Hughson, Cold Spring.

Gold Belt Power Co., Ltd., Boise, Idaho; $600,000; R. W. Berry, Hailey, Idaho; G. M. Parsons, Boise.

Loeber Incandescent Light & Heat Co., New Jersey Registration & Trust Co. Bldg., Jersey City, N. J.; acquire patents for devices for burners, lamps and lighting and heating; $5,000,000; Frank M. Wirgman, Wm. F. Eidell.

BRIDGES.

TAUNTON, MASS.—Local papers state that the committee on Oct. 10 rejected all bids for the proposed new bridge over the river on Scadding St., being in excess to the amount appropriated for the work. The work has been postponed until spring, owing to the lateness of the season.

WILLIMANTIC, CONN.—The contract for constructing a new iron bridge over the Willimantic River on the Air Line Division of the New York, New Haven & Hartford R. R., has been let to Lathrop & Shea. The bridge will be a single-track structure, and will replace the present structure, which is 175 ft. long.

BATAVIA, N. Y.—Local papers state that an election will be held in November to vote on the question of appropriating $3,000 for a bridge over Tonawanda Creek.

PHILADELPHIA, PA.—Bids are asked until Oct. 24 for constructing a bridge over a branch of Pennypack Creek on the line of Grant St., a foot bridge over the Philadelphia & Reading R. R. at East St., and a plant for operating the draw span of South St. by electricity. Wm. C. Haddock, Dir. Dept. Pub. Wks.

WASHINGTON, D. C.—Capt. L. H. Beach, U. S. Engr., Engineer Commissioner, writes us that no appropriation has been made for the proposed bridge over Rock Creek at Gay or N. St. or at Dumbarton Ave., the construction of which has strongly been urged by Jesse H. Wilson, of the Georgetown Citizens' Association, according to reports from local papers.

NEWPORT NEWS, VA.—Bids are asked until Oct. 23 for constructing concrete retaining walls for the approaches to the 25th and 34th St. bridges, according to reports. E. I. Ford, Chn. Bridge Com.

CENTER, ALA.—Local papers state that the county commissioners have decided to build a steel bridge across the Coosa River, near Smith's landing.

CLEVELAND, O.—Local papers state that the Pennsylvania R. R. Co. will prepare plans for abolishing the grade crossing at Holton St.

COLUMBUS, O.—An election will be held in November to vote on the question of constructing a new bridge over the Olentangy River at West Goodale St., the cost of which will be about $30,000.

MIAMISBURG, O.—Bids are asked until Oct. 28 for constructing an 84-ft. bridge at Sycamore St., on the extension of Sixth St., according to reports. A. G. Feight, County Audr., Dayton.

TOLEDO, O.—An organization has been formed to push the project of constructing the new bridge across the Maumee from the foot of Jefferson St. J. J. Barber, Pres.; John M. Ormond, Secy.; W. L. Milner, Treas., and others are interested.

RUSHVILLE, IND.—The county commissioners let a contract on Oct. 4 for constructing five wooden bridges to Indianapolis Bridge & Iron Co., at $1,339. The company also received a contract from the commissioners of Wayne and Randolph counties for erecting a bridge on the county line.

CLINTON, IA.—W. E. Russell, Cy. Audr. and Clk., writes us that the proposed new bridge, to be erected across Sixth St. at Third Ave., Lyons, will be an arch structure 8 ft. wide and 9 ft. high. Foundation will be of cement and stone, with arch of stone and brick. A resolution for advertising for bids has been forwarded to the council.

TOPEKA, KAN.—The county commissioners on Oct. 9 voted an appropriation of $2,000 toward the construction of the proposed bridge across the Kaw at the corner of Shawnee and Jefferson counties. The structure will cost about $10,000. The commissioners have given the old Kansas Ave. bridge to be used in the construction.

KANSAS CITY, MO.—Local papers state that the contract for constructing the Eighth St. viaduct has been awarded to the Midland Bridge Co., of this place, to cost about $150,000.

ST. LOUIS, MO.—Local papers state that the promoters of the third bridge, through William S. Forman, an East St. Louis representative, have received information from the War Department Commission which states that if the bridge is located at Mallanphy St., 700-ft. span will be necessary; but if constructed nearer the Eads Bridge the length of the spans may be lessened.

ORANGE, TEXAS.—The county commissioners have awarded to J. M. Matthews, Houston, a contract for a steel bridge across Adams bayou, near the old round house, west of this city, at $1,900, and to Morgan Rhodes, Waco, a contract for 120-ft. steel bridge across Adams bayou on the Beaumont Road, at $1,478, and for a 50-ft. steel draw-span structure across Cow bayou at Round Bunch, at $2,365.

LARAMIE, WYO.—Local papers state that the Pueblo Bridge Co., Pueblo, has received a contract for a steel bridge in Albany county, about 40 miles north of this place.

DENVER, COLO.—The people of Eagle county are subscribing for the proposed bridge over the Grand River at Dotsero, according to reports. It is hoped to raise several thousand dollars in addition to the $5,000 already appropriated, for a first-class structure.

MADERA, CAL.—Bids are asked until Nov. 6 for constructing a bridge over the Fresno River on David and Hensley Road, according to reports. C. H. Eubanks, Clk. Bd. Supervisors.——The hearing of a petition for a bridge over Churchill River will be given by the supervisors on Nov. 6.

SALINAS, CAL.—Bids are asked by the supervisors until Nov. 8 for constructing a bridge over the Gabilan Creek, between Salinas and Natividad, according to reports.

SAN FRANCISCO, CAL.—E. J. Morser, Asst. Cy. Engr., writes us that the supervisors have done nothing in the way of ordering the preparation of plans, estimates, etc., for the proposed bridge to be erected across the tracks of the Southern Pacific Ry. on San Jose Ave., near Mount Vernon Ave., and that it is not probable that any action will be taken on the matter this year.

SANTA CRUZ, CAL.—H. H. Miller, Clk. Bd. Supervisors, writes us that the contract for constructing a bridge over Noble Gulch, near Capitola, was awarded on Oct. 2 to Nelson Mosher, at $1,450.

BUILDINGS.

MOUNT DESERT, ME.—Bids are asked by the selectmen of this town until Oct. 20 for erecting a school building at Seal Harbor.

HANOVER, N. H.—The trustees of Dartmouth College are reported to have authorized the construction of a dormitory building on the College grounds, to cost $25,000.

BRIDGEPORT, CONN.—Casey & Hurley were the lowest bidders for erecting the new police building, at $81,400.

BROOKLYN, N. Y.—A fire in this city Oct. 13 destroyed a brick warehouse at the foot of 42d St. belonging to the Bush Storage Co.; estimated loss, $300,000.——W. G. Triest, 39 Cortlandt St., New York, has been awarded the contract by the bureau of yards and docks, Washington, D. C., for extension to building No. 33, at the navy yard in Brooklyn, at $47,724, for which work bids were opened on Oct. 7.

CHATHAM, N. Y.—The Windsor Hotel at Chatham was destroyed by fire Oct. 15; reported loss, $50,000.

FONDA, N. Y.—The supervisors of Montgomery county have decided to readvertise for bids for the erection of new county buildings, the time for their completion being extended to April 15.

HUDSON, N. Y.—The state prison committee has approved of the plans for a new $20,000 jail to be built here for Hudson county.

LIBERTY, N. Y.—The Loomis Sanitarium, about three miles from Liberty, was damaged by fire Oct. 14; reported loss, $75,000.

NEW BRIGHTON (S. I.), N. Y.—Bids are asked by the department of buildings, lighting and supplies, 21 Park Row, New York, until Oct. 24, for erecting an automatic low-pressure steam-heating apparatus in the Village Hall at New Brighton, Staten Island, Borough of Richmond.

NEW YORK, N. Y.—Plans have been filed by the French Church of St. Esprit for a 2-story brick church building at 45 and 47 East 27th St., to cost $50,000. Brun & Hausen, Archs., 1125 Broadway; John Langley, Contractor, 168 West 25th St.; by James McCutcheon, Greenwich, Conn., for a 10-story brick and stone loft building at 3 to 7 West 22d St., to cost $150,000. James B. Baker, Arch., 156 5th Ave.; by Weil & Mayer, 25 Nassau St., for two 6-story brick flat and store buildings at 377 and 379 East 10th St., to cost $50,000. Schneider & Herter, Archs., Bible House; by C. H. Phelps, 234 West 132d St., for five 5-story brick flat and store buildings at 149th St. and Beach Ave., to cost $84,000. W. C. Dickerson, Arch., 149th St. and 3d Ave.; by G. H. Groth, 123 Edgecombe Ave., for two 5-story brick and stone flat buildings on 141st St., near 8th Ave., to cost $54,000. C. A. Milner, Arch., 81 East 125th St.; by E. H. White, 985 East 169th St., for two 5-story brick flat buildings at 168th St. and Boston Ave., to cost $90,000. Neville & Bagge, Archs., 217 West 125th St., by Harry Chaffee, 29 East 19th St., for a 7-story brick and stone flat building at 60th St. and Columbus Ave., to cost $101,000. J. T. Campbell, Arch.; by John Van Dolsen, 133 West 120th St., for three 5-story brick flat and store buildings at Cortlandt Ave. and 160th St., to cost $70,000. G. F. Pelham, Arch.; by Thomas Graham, Owner and Arch., 1238 Madison Ave., for two 6-story brick flat buildings at Madison Ave. & 99th St., to cost $200,000; by Lewis Bachrach, 31 Nassau St., for a 6-story brick flat and store building at 117 and 119 Ave. C, to 3cost $45,000. M. Bernstein, Arch.——Hugh Getty, 274 9th Ave., is reported to have been awarded the contract for erecting a 6-story brick warehouse at Greenwich and Watts Sts. for Samuel Crooks, 464 Greenwich St. Franklin Baylies, Arch., 33 Bible House.——A new brick and stone church building is to be erected on 82d St., near Amsterdam Ave., for the Roman Catholic Church of Holy Trinity; Jos. H. McGuire, Arch., 3 West 29th St. The general contract is said to have been let to Luke A. Burke & Co., 401 West 59th St.——Gillespie Bros., 154 W. 23d St., is reported to have been awarded the contract for erecting a 6-story fireproof store and loft building on 42d St., near 6th Ave., for Alex. J. Halter. Flemer & Koehler, Archs., 11 Broadway.

NEW YORK, N. Y.—Bids are asked by the board of education, 146 Grand St., until Oct. 23, for heating and ventilating apparatus and electric lighting plant for Public School 174, Borough of Manhattan; also for heating and ventilating apparatus and electric lighting plant for eastern district High School, Borough of Brooklyn.

ROMER SHOAL, N. Y.—Bids are asked until Oct. 31 for erecting the main gallery at Romer Shoal light station, N. Y. Lieut.-Col. D. P. Heap, U. S. Engrs., Tompkinsville (S. I.), N. Y.

TROY, N. Y.—Plans have been prepared by M. F. Cummings & Son, Times Bldg., for a 4-story addition for the House of the Good Shepherd, to cost about $22,000.

WEST POINT, N. Y.—Bids are asked until Nov. 16 for new plumbing in cadet hospital at the U. S. Military Academy. Address the quartermaster.

WESTFIELD, N. J.—An election will be held here soon to vote upon the proposition of appropriating $40,000 for a new school building.

BRADDOCK, PA.—The following bids have been received for erecting a new town hall at Braddock: Geo. W. Mellott, Crafton, Pa. (accepted), $31,266; J. H. Brighsell, $32,500; J. A. Rankin & Co., $34,000.

PHILADELPHIA, PA.—The following bids are reported to have been received by the board of education for constructing a 12-room building at Greenway Ave. and 51st St.: W. J. Smith, 1821 South 5th St., $67,491; Geo. W. Pierson, Lippincott Bldg., $72,922; Wm. R. Dougherty, 1604 Sansom St., $76,900; M. P. Wells & Co., 1420 Chestnut St., $78,491; J. E. & A. L. Pennock, 305 Walnut St., $80,414; Thomas Gamon, 1629 Christian St., $81,000; Chas. O'Neill, 1216 South Broad St., $84,397.

RICHMOND, VA.—The plans of Wilson Bros. & Co., Drexel Bldg., Philadelphia, Pa., are reported to have been chosen for the new union station building to be erected here for the Chesapeake & Ohio R. R. and the Richmond, Petersburg & Carolina R. R.; estimated cost, $150,000. F. W. Scarborough, Engr. of the C. & O., and T. R. Talcott, of the R., P. & C., have charge of the construction work.

WINCHESTER, VA.—It is reported that an agreement has been reached between the city and county officials which makes possible the early erection of a new public building, with $30,000 given by C. B. Rouss.

HARPER'S FERRY, W. VA.—Bids are asked by A. Kaplon until Oct. 25 for erecting a store building in this city. Frank E. and H. R. Davis, Archs., 220 St. Paul St., Baltimore, Md.

BEAUFORT, S. C.—Bids are asked until Oct. 21 for construction of three sets of officers quarters and one barracks at Land's End, St. Helena Island, near Beaufort. Address John Simpson, D. Q. M. G., U. S. Army, Atlanta, Ga.

SELMA, ALA.—Bids are asked until Nov. 6 for the purchase of $40,000 of bonds for erecting a court house. P. G. Wood, Probate Judge.

AGRICULTURAL COLLEGE, MICH.—A. W. Mohnke, Grand Rapids, Mich., is reported to have been awarded the contract for the construction (except heating apparatus, elevators, electric wiring and conduits) of the women's building at the Michigan Agricultural College, at $73,000. A. C. Bird, Secy.; Pratt & Koeppe, Archs., Bay City, Mich.

CHICAGO, ILL.—St. Mary's Training School at Feehansville was damaged by fire Oct. 15. Estimated loss, $200,000; insurance, $60,000.——Plans have been completed for reconstructing Selz, Schwab & Co.'s building at Market and Monroe Sts., to cost about $60,000. D. Adler, Arch.

LINCOLN, ILL.—W. F. Hoyle, Lincoln, is said to have been awarded the contract for erecting the new building at the Illinois Asylum for Feeble-Minded Children, at $162,950. Six other bids were submitted. C. R. Gittings, Pres. Bd. of Trustees, Lincoln.

HURLEY, WIS.—Plans have been prepared, according to reports, for a new high school building for Hurley, to cost about $20,000. Van Ryn & De Gelleke, Archs., Merrill Bldg., Milwaukee, Wis.

DES MOINES, IA.—Reports state that plans have been prepared for a brick and stone hotel building for F. M. Hubbell, Son & Co., to cost about $60,000. C. R. Dewey & Co., Archs., Youngerman Bldg.

WATERLOO, IA.—A fire here Oct. 15 destroyed the building occupied by Fowler & Co., wholesale grocers. Total estimated loss, $100,000; insurance, $60,000.

SPOKANE, WASH.—The contract for erecting the new 6-story Empire State Building in this city has been let to Peter L. Peterson, at about $35,000. When completed the building will cost about $125,000.

SAN FRANCISCO, CAL.—Plans have been completed for a new 7-story fireproof building, 50 x 100 ft., for Samuel A. Seymour, to be occupied by the Adventist Sanitarium; estimated cost, about $85,000. Shea & Shea, Archs., 26 Montgomery St.

SANTA ANA, CAL.—Bids are asked until Oct. 23 for the purchase of $200,000 of general public school bonds. C. H. Hance, Cy. Clk.——The plans of Parkinson & Bradshaw, Archs., Los Angeles, Cal., are reported to have been accepted for the proposed Orange county court house, to cost about $100,000.

SACATON, ARIZ.—Bids are asked by the office of Indian affairs, Washington, D. C., until Nov. 9, for erecting at the Pima Agency, Ind. Ter., one brick school building and one sewer and water system. Elwood Hadley, U. S. Agent, Pima Agency, Sacaton.

VERNAL, UTAH.—A special election will be held in Uinta county Oct. 28 to vote upon the question of issuing $16,000 of bonds for the erection of a new court house. Peter Hanson, County Clk.

VICTORIA, B. C.—Bids are asked until Nov. 10, according to reports, for erecting a brick and stone building at Government and Broughton Sts. Thomas Hooper, Arch., 63 Government St.

MEXICO, MEX.—Press reports state that the National Bank of Mexico, having a capital and surplus of about $20,000,000, is about to erect a handsome new steel and stone building.

ASUNSION, PARAGUAY.—John N. Ruffin, U. S. Consul, reports that bids will be open in a few months for the construction of a new city market. The old market building is to be torn down and a large city hall erected in its place. New docks, levees, city bridges, etc., are also to be built.

PARIS, FRANCE.—Commissioner-General Peck is stated to have just awarded the contract for erecting the Publishers' Building for the U. S. exhibit at the Paris Exposition of 1900. The building will be in charge of Charles H. Simms, Asst. Director of Liberal Arts.

SHANGHAI, CHINA.—It is announced that the Shanghai Warehouse Association, promoted by the National Association of Manufacturers, Philadelphia, Pa., has secured a site in Shanghai for the erection of a large warehouse for the storing of goods intended for the American trade.

WATER-WORKS.

BLACKSTONE, MASS.—The water commissioners of Woonsocket, R. I., have submitted a proposition to furnish this place with a water supply. Address Michael Carroll, of the committee.

BOSTON, MASS.—Bids are asked by the Metropolitan Water Board until Nov. 17 for 720,000 cu. yds. of excavating from the Wachusett reservoir, as described in our advertising columns. Wm. N. Davenport, Secy., Boston.

WEST SPRINGFIELD, MASS.—At the town meeting Oct. 13 it was voted to ask the general court for permission to borrow $50,000 for new mains, a new reservoir, etc. Address Water Commissioner Woodward.

FORT GREBLE, R. I.—Bids are asked until Oct. 23 for sinking an artesian well. H. P. Young, Q. M., 209 Thames St., Newport, R. I.

LANSINGBURG, N. Y.—Reports state that it is probable that the water commissioners will ask for new bids for an addition to the works to cost about $60,000. The contractors, to whom it was recently reported the contract had been let, seem to refuse to accept certain portions of the specifications. C. E. Hicks, Engr.

NEW YORK, N. Y.—Bids are asked by the department of water supply, 21 Park Row, until Oct. 26, for furnishing shovels, barrows, screws, brick, clay, cement, asbestos, etc.

PLATTSBURG, N. Y.—The following bids were received last week for building a small masonry dam: McCaghey & Linehan, $3,157; M. J. Fitzpatrick, $3,022; W. H. Brewster, $2,843; G. A. Rogers, $2,798. Chas. M. Edwards, Engr. in charge.

ROCHESTER, N. Y.—Bids are asked until 10 a. m. Oct. 20 for laying water pipe in eight streets. C. M. Beattie, Clk. Executive Bd.

SCHENECTADY, N. Y.—The water commissioners have awarded the contract for laying 4,244 ft. of 6-in. iron water main in Wendell Ave. and Nott St. to Joseph H. Clements, a local contractor. Charles Millar & Son, Utica, furnish the pipe. W. J. Mariette, Secy.

UTICA, N. Y.—Reports state that Redmond, Kerr & Co., 41 Wall St., New York, have purchased the property of the Utica Water-Works Co. for $1,653,500, of which $1,600,000 is in cash and $53,500 in debenture bonds assumed by the purchasers. The capital stock of the Utica company is $1,000,000, divided into 40,000 shares of $25 each. The sale is made at 160. The company was incorporated fifty years ago, and now has storage capacity of over 1,000,000,000 gallons. It has a monopoly of the water service in this city, and holds an unusually valuable city franchise. Competition has been projected within the past year, and there has been much discussion as to municipal ownership.

BAYONNE, N. J.—Chas. I. Roake, Water Purveyor, has suggested that the council should ask the water company to build a stand-pipe.

JERSEY CITY, N. J.—Theo. Smith & Sons Co. has secured both contracts for removing the 9,000,000-gallon duplex pump at Greenville and setting it up at high service, and for removing and setting three horizontal boilers, at $8,218 and $5,960, respectively.

ORANGE, N. J.—The Wright Steam Engine Works, of Newburg, N. Y., has secured the contract for the pump at $24,275. The pump is to be set up at Campbell's Pond and operated within a month. Dowd and Olds were awarded the contract for the dam, waste weir, etc., at $10,810, and Ludwig Batt, of South Orange, was awarded the contract for iron pipe, valves, etc., at $3,500.

SHORT HILLS, N. J.—The Short Hills Water Co. has been incorporated, with a capital stock of $200,000, of which $5,000 has been paid in. The corporators are Edward G. Layng, Terance Gavan, W. F. Morgan, Short Hills, and Assemblyman J. Martin Roll, of Springfield, N. J.

VINELAND, N. J.—At a meeting of the council Oct. 12 the Vineland Water-Works Co. offered to sell its works to the town for $100,000. The council made a counter proposition, agreeing to give $95,000, and a committee has been appointed to effect a compromise.

ALBION, PA.—The question of works is reported as being considered.

MARIETTA, PA.—The Marietta Gravity Water Co. is reported to have purchased property on the York county side of the Susquehanna River for its water supply.

SPARTANSBURG, PA.—Reports state that this place proposes to put in works.

WARREN, PA.—Reports state that an injunction restraining Warren from building works has been granted by the court. The hearing of the case was fixed for Oct. 16. The action is brought by taxpayers who are opposed to bonding the borough for the proposed improvement. They claim that the borough has no right to do so under the existing laws.

WILMINGTON, DEL.—We are informed that the following bids were received Oct. 10 for furnishing and erecting a stand-pipe in Rockford Park; J. A. Bond, Ch. Engr.: John Baizley Iron Works, Philadelphia, $23,995; Struthers, Wells & Co., Warren, Pa., for steel tank only, $13,120; Standard Boiler & Bridge Co., Bellaire, O., $21,235; Edge Moor Bridge Works, Wilmington, including rubber pads for stair steps, $20,600 (accepted), with Mason safety tread $340 extra; Broomell, Schmidt & Co., York, Pa., $19,197; R. D. Wood & Co., Philadelphia, $22,140; for corrugated rubber pads or Mason safety tread, $275 extra.

HIGH POINT, N. C.—The question of issuing $50,000 in 5% bonds for works and a sewerage system was voted down Oct. 16. O. M. Richardson, Secy. and Treas.

AUGUSTA, GA.—The North Augusta Land Co. proposes to build works soon in North Augusta. W. M. Jackson, Gen. Mgr.

VALDOSTA, GA.—The council has let the contract for an increased water supply to the Bacon Air Lift Co., 100 Broadway, New York, according to reports.

KISSIMMEE, FLA.—W. J. Sears, Jr., Mayor, writes us that the city wants to secure estimates for works and an electric plant at once. There will be wanted for the works about 15 hydrants. The water supply will be secured from the lake. Mayor Sears wants to hear from manufacturers instead of from contractors. Population, 1,200.

TAMPA, FLA.—The council has granted a ten-year extension to the franchise of the Consumers Water Co.

PHENIX, ALA.—W. E. Morehead, Clk., writes us that it has not yet been decided to put in works. There are several good locations for a stand-pipe. Local papers state that a committee is investigating the question of works. It consists of B. H. Smith, Wm. Waldrop, J. B. Coan and J. H. Moore.

TALLADEGA, ALA.—J. M. Thornton, Mayor, writes us that the city is having trouble with the Talladega Light & Water Co., of which a press report states that T. L. Billingrath has been made receiver. It is possible that new works will be built.

UNIONTOWN, ALA.—Edward J. O'Beirne, Chinchuba, La., is reported to have been awarded the contract for constructing works and an electric plant at $13,990.

KNOXVILLE, TENN.—A special hearing was held Oct. 16 by Maj. D. C. Kingman, U. S. Engrs., representing the War Department, of the request of the Knoxville Water Co. to erect a large intake water tower in the Tennessee River here. The water company will, it is understood, issue about $600,000 in bonds for the improvements. The stock of the company is largely owned in Boston and New York.

HIGHLANDS, KY.—Bids are asked until Nov. 8 for the purchase of a franchise for laying pipe and supplying this district with water. Wm. H. Band, Secy. Bd. Trustees, P. O., Fort Thomas, Ky.

BATAVIA, O.—C. B. Porst, of the board of trustees, writes us that plans and specifications for works have not yet been submitted, but probably will be in a few days. The works will cost about $2,500. H. C. Babbitt, Engr., Tippecanoe, O.

COLUMBUS, O.—Henry R. Worthington, New York, has submitted the lowest bid at $2,625 for the pumping machines and labor for the west side works.

ELYRIA, O.—L. E. Chapin, Canton, O., has submitted estimates for new works to cost about $195,531. The water supply will be taken from the lake. A filtration will be required, as the intake proposed will be only 500 ft. long. R. B. Lersch, Chn. Com.

GIRARD, O.—The council has let the contract for works to Camp, Shields & Krehl. This firm proposes to put in a light plant.

PIQUA, O.—The council is sinking test wells for a new water supply, according to reports.

SPRINGFIELD, O.—Another well is to be sunk for an increased water supply.

BROOKSTON, IND.—The question of works is being considered, according to reports.

NEW ALBANY, IND.—Mayor Crumbo has signed the ordinance granting a 25-year franchise for works to T. Lindsay Fitch, Louisville, Ky. There is said to be considerable opposition to the franchise and an injunction is threatened. The plant is to be completed inside of 16 months. Bond, $10,000.

MUSKEGON, MICH.—The water department will spend $2,000 on improving the mains.

SHEPHERD, MICH.—This place at a recent election defeated the question of works.

CASEY, ILL.—Bids are asked until 2 p. m. Oct. 21 for constructing works and an electric plant. John J. Hainsworth, Engr., Indianapolis, Ind. Geo. Garner, Cy. Clk.

PEKIN, ILL.—E. W. Wilson, Mayor, writes us that efforts are being made by the city to purchase the works of the Pekin Water-Works Co. The question will soon be submitted to a vote of the people. The plant is said to be worth about $113,000.

TOLEDO, ILL.—It is proposed to build works to have a 250,000-gallon pump, a 40,000-gallon stand-pipe, 2,000 ft. of 6-in. and 19,000 ft. of 4-in. pipe. Address T. C. Reed.

FOND DU LAC, WIS.—Local parties are reported to have purchased the control of the Fond du Lac Water Co.

GRAND RAPIDS, WIS.—The council is reported to have decided to build works to cost about $46,300.

GREEN BAY, WIS.—The Green Bay Water Co. has decided to make repairs to the works, including the covering of the reservoir.

STANLEY, MINN.—The question of putting in complete works is being considered. Address Alderman Donohue.

INDIANOLA, IA.—An election will soon be held to vote on the question of issuing bonds for works, according to reports.

NEWELL, IA.—This place has voted to issue bonds for works. Mayor Messtor has appointed J. T. Norton, W. A. Waterman and Geo. W. Chaney a committee.

OSCEOLA, IA.—The question of accepting a proposition from a company to put in works and an electric plant is being considered, according to reports. Estimated cost, $45,000.

WATERVILLE, KAN.—The question of putting in works is being considered, according to reports.

ALBION, NEB.—E. H. Mullowney, Cy. Clk., writes us that it is proposed to erect a stand-pipe. The city has about $8,000 to invest.

LINCOLN, NEB.—Bids are reported as being asked for 5,000 ft. of 12-in. and 1,350 ft. of 6-in. water pipe and 16 hydrants. Address Councilman Spears, Chn. Com.

HILLSBORO, N. DAK.—Fred. L. Goodman, Mayor, writes us that an election will be held Nov. 14 to vote on the question of issuing bonds for works and an electric plant. Population, 1,600.

VICTOR, COLO.—The council has voted $20,000 for extending the water mains, according to reports.

ENNIS, TEX.—The question of putting in works is reported as being considered.

GREENVILLE, TEX.—The works of the Greenville Water Co. have been sold to C. F. Street, of New York, representing the bondholders, for $31,000. It is stated that the works will be improved.

ALVA, OKLA.—Bids are asked until Oct. 16 for the purchase of $16,000 of 6% 30-year bonds for the proposed works. Population, 1,500. H. Cofield, Cy. Clk.

SUMPTER, ORE.—The Sumpter Water & Power Co. has been incorporated with a capital stock of $100,000 by W. L. Vinson, A. P. Goss and C. A. Johns.

LOS ANGELES, CAL.—The Los Angeles City Water Co. has filed a suit against the city to set aside the awards rendered by the arbitrators, who fixed the value of the works at $1,185,591. The city some time ago voted to purchase the property at this price.

SACRAMENTO, CAL.—L. Tozer, Chn. Water Com., writes us that an improved system and probable change of source is being considered. No appropriations have been made, and none will be made until the committee submits its report.

SAN JACINTO, CAL.—The San Jacinto Water Co. has been incorporated with a capital stock of $125,000 by John Shaver and A. G. Munn, of San Jacinto, and P. L. Griffin, of Los Angeles, Cal.

SAN LUIS OBISPO, CAL.—Reports state that the Supreme Court has found that the procedure in the issuance of bonds by the city was not conducted in accordance with law, and declares the election void. The city voted for $80,000 for water-works and $36,000 for sewers.

SANTA BARBARA, CAL.—Bids are asked until 7.30 p. m. Oct. 25 for extending the water tunnel 500 ft. The city will furnish the power plant, air pipe, timber, rails, tools, implements, etc. F. F. Flournoy, Cy. Engr.; B. W. McGrath, Supt.; Alphonse Crane, Cy. Clk.

CHATHAM, N. B.—Warren C. Winslow, Mayor, writes us that as a test it is proposed to sink an artesian well for a water supply. A stand-pipe is proposed. J. E. Feeley, of Boston, will sink the wells under the direction of Freeman C. Coffin, 53 State St., Boston, Mass. The Bacon Air Lift Co., 100 Broadway, New York, has submitted a proposition. The contracts will be let next spring. Population, 6,000.

ST. JOHN, N. B.—It is proposed to extend the water mains and sewers at a cost of about $24,000.

LACHUTE MILLS, QUE.—We are informed that no definite action has been taken towards securing new works. A steam pumping plant to supply a 6-in. main may be required. The entire plant may have to be reconstructed, as it is useless for fire purposes.

INGERSOLL, ONT.—Geo. D. Duncan, Supt., writes us that the question of the city purchasing the works will be voted upon Jan. 1. Population, 5,000.

PARRAL, CHIHAUHAU, MEX.—A local company has been organized to build works to cost $150,000.

CHIPPING, CAMDEN, ENGLAND.—Bids are asked until Oct. 31 for sinking a 7½-in. well 130 ft., and lining same, for the Moreton-in-March works. Nicholson Lailey, Engr., 16 Great George St., Westminster, London; J. E. Hiron, Clk.

SEWERAGE.

PITTSFIELD, MASS.—S. C. Burton, M. D., Health Officer, writes us that no action has been taken by the city as regards the sewage disposal plant, and that the matter will not come up for further action until June 1, 1900.

BUFFALO, N. Y.—Bids are asked until Oct. 25 for constructing 18 to 12-in. pipe sewers in Harriett St. R. G. Parsons, Secy. Bd. Pub. Wks.

NEW YORK, N. Y.—At the meeting of the board of public improvements of the borough of Brooklyn on Oct. 11 resolutions authorizing the Commissioner of Sewers to construct sewers in the 30th ward in the following streets were adopted: Fort Hamilton Ave., from 60th St. to 62d St.; 60th St., from Fort Hamilton Ave. to 14th Ave., and in 14th Ave., from 41st St. to 60th St., at an estimated cost of $460,000. The Board also authorized the construction of sewers in Reid Ave., from Greene Ave. to Gates Ave.; and Monroe St., from Ralph Ave. to Patchen Ave., at a cost of $20,000; in Tenth Ave., from 15th St. to 20th St., at a cost of $5,000; in Alabama Ave., from Atlantic Ave. to Glenmore Ave., at a cost of $9,000. Repairs were authorized to sewers in Warren St., from Bond St. to Smith St.; in Smith St., from Warren St. to Atlantic Ave.; in Hoyt St., from Warren St. to Pacific St., and in Wyckoff St., from Smith St. to Court St., at a cost of $18,000.

NEW YORK, N. Y.—The following are the lowest bids received Oct. 11 for certain sewer work: East 32d St., Brooklyn, Jas. J. Jennings, $4,527; Church Ave., Brooklyn, J. J. Creem, $1,160; Morris Ave., Bronx, W. R. Skillman, 150 Nassau St., $3,330.

NORTH TONAWANDA, N. Y.—Reports state that on Nov. 4 an election will be held to vote on the question of constructing sewers in the Ironton District and ten other streets, at an expense of $30,000.

SYRACUSE, N. Y.—The council on Oct. 9 awarded the following contract for certain sewers: Seward St., Wood St., Beecher St., and Douglas St., Davin & Rafferty, $3,185; for constructing a 12-in. pipe sewer in Emerson Ave., from Schuyler St. to Tompkins St., Davin & Rafferty, $1,060; for constructing sewer in Wilbur Ave., Tennyson Ave., Bryant Ave., Whittier Ave., Coleridge Ave. and Lowell Ave., Thomas Marnell, $7,496. The following bids were received for constructing a 32 × 48 to 20 × 30-in. brick or pipe sewer: C. T. Hookway and James Swift, brick, $14,876; F. D. Sposato, brick, $14,350; F. J. Baker, & Co., Web tile, $13,432; William O'Connor, $15,561; F. D. Sposato, $14,605.

CHARLEROI, PA.—Bids were opened Oct. 12 for sewers to cost about $90,000. W. H. Pollock, Burgess.

GETTYSBURG, PA.—Gettysburg Drainage Co. has been incorporated with a capital stock of $3,000 to construct sewers, etc. Incorporators: J. W. C. O'Neal, J. W. Warner, H. C. Saunders, Gettysburg, and others. President O'Neal writes us that work will begin next week, and will cost $2,500. A manager will be employed.

LANSDOWNE, PA.—H. L. Warren, Secy., writes us that no plans for a system will be prepared until after the voters give consent. They will vote on the question at the election Nov. 7. Address T. G. Janvier.

ROANOKE, VA.—Bids are asked until Nov. 4 for constructing sections 106 and 25 in the Third and Fourth wards, respectively, in this city. J. H. Wingate, Cy. Engr.

ALEXANDRIA, ALA.—An election will probably soon be held to vote on the question of issuing bonds for a system.

DONALDSONVILLE, LA.—H. E. Hanson, Pres. Progressive League, writes us that the city is preparing to issue $40,000 in bonds for street and sewer work. Brick sidewalks will be laid.

ELYRIA, O.—Bids are asked until Oct. 24 for constructing sewers in Cascade, Forest and Junction Sts. W. H. Park, Cy. Clk.

FINDLAY, O.—The board of improvements on Oct. 5 received the following bids for the construction of sewers on Blanchard, Center and Cherry Sts.: Hurley & Hoyle, Marion (accepted), $3,159; Fred. Klineman, $3,797; Metcalf & Weisickel, $4,116.

LAKEWOOD, O.—At a meeting of the citizens on Oct. 7 it was voted to recommend the construction of a system in this town, the estimated cost of which is $117,772. A septic tank is recommended in the proposed improvements. H. W. Elliott, Chn. Com.

HAMMOND, IND.—Bids are asked until Oct. 31 for constructing certain sewers. P. J. Lyons, Cy. Engr.

GRAND RAPIDS, MICH.—It is proposed to construct a trunk sewer in the west side at a cost of $157,000.

WEQUETONSING, MICH.—Local papers state that the construction of water-works and systems will be started soon.

CHICAGO, ILL.—The Mayor has decided that the proposed 39th St. intercepting sewer extensions must be built by day labor at a cost of about $900,000. The bids received Aug. 7 have been rejected. Patrick A. Nash was in each case the lowest bidder at $531,556 for section G, and $332,098 for section H. L. E. McGann, Comr. Pub. Wks.

LAKE-BLUFF, ILL.—Bids are asked by the board of local improvements until Oct. 31 for connecting the system of this village with sewers emptying into Lake Michigan, as described in our advertising columns.

MARSHALLTOWN, IA.—The Marshalltown Glucose Works proposes to build a sewage disposal plant at its works.

SIOUX CITY, IA.—Reports state that plans have been prepared for a conduit, 20 ft. × 16 ft., base of concrete, brick; length of section "A" 900 ft., to divert the water of Perry Creek. The conduit will be of horse-shoe shape, and section "A" is estimated to cost $39,000. M. M. Lewis, Acting Cy. Engr.; F. W. Cappelen, Consulting Engr., Minneapolis, Minn.

ARKADELPHIA, ARK.—Local papers state a committee has been appointed to consider the question of putting in a system, and a water and light plant, and to estimate the cost of the work.

DENVER, COLO.—The board of public works has instructed the engineer of the board to report on the question of constructing a storm sewer district, to take in West 33d Ave. and Water St., which is likely to be paved. The board rescinded the order instructing the engineer of the board to prepare plans for a storm sewer district in North Denver.

COLFAX, WASH.—Peter Costello, Spokane, Wash., is reported to have been awarded the contract for constructing sewers at $10,636.

SAN LUIS OBISPO, CAL.—At an election held in this town recently $116,000 was voted for the construction of a system and water-works, according to reports.

SAUSALITO, CAL.—Reports state that E. H. Rollins & Son have purchased the $10,000 in bonds recently issued for the construction of a system.

TUCSON, ARIZ.—The committee is reported to have been authorized to employ an engineer to prepare plans for a system.

OTTAWA, ONT.—The residents of the Glebe are urging the city officials to build sewers in that section of the city.

DURANGO, MEXICO.—Reports state that the state authorities of Durango are negotiating with Chicago and New York bankers for a loan of $2,000,000, which is to be expended in the extensive improvements to be made in Durango.

PARRAL, MEX.—A company of local capitalists has subscribed $150,000 (Mexican) for water-works in Parral (Chihuahua), and when completed a sewerage system to cost $80,000 will be put in by the state.

AYLESBURY, ENGLAND.—Bids are asked until Oct. 31 for the following machinery for a sewage pumping plant: Two horizontal 12-HP. (nominal) gas engines; two 8-in. centrifugal pumps; one air compressing apparatus. J. H. Bradford, Surveyor; Geo. Fell, Clk. Council.

BRISTOL, ENGLAND.—It is proposed to construct certain sewers at a cost of about $225,000.

EXMOUTH, ENGLAND.—Bids are asked Oct. 24 for constructing about 4,500 ft. of brick sewers, 2 ft. 6 ins. and 2 ft. 3 ins. in diameter, and about 26,100 ft. of stoneware pipe sewers, from 24 ins. to 9 ins. in diameter; the erection of a pumping station, and for laying about 1,410 ft. of cast-iron pipes, 27 ins. and 30 ins. in diameter, for an outfall into the River Exe. James Mansergh, Engr., 5 Victoria St., Westminster, London; H. C. Adams, Clk.

GARBAGE DISPOSAL—STREET CLEANING

ALBANY, N. Y.—The board of health has adopted specifications for collecting and disposing of the garbage. The matter will now be submitted to the council.

NEW YORK, N. Y.—Bids are asked by the department of street cleaning, 13 Park Row, until noon Oct. 20, for furnishing the following for a street cleaning plant in Brooklyn: 100 ash carts, 50 double dumping trucks, 19 single sprinkling trucks, 28 two-horse sweeping machines, 25 wooden paper carts, 100 can carriers, 250 canvas cart covers, 60 canvas truck covers, 250 canvas horse covers, 5,000 second-hand burlap bags, marked D. S. C.

LONG BRANCH, N. J.—A site for the proposed garbage crematory has been selected, according to reports.

LOUISVILLE, KY.—Bids are asked until noon Oct. 24 for furnishing and erecting a crematory to destroy 100 tons of garbage and night soil a day, or to erect a plant and destroy the refuse for a term of ten years, or to erect a plant of 50 tons capacity a day, under either of the above propositions. This is the third call for bids for a crematory. The bids received Aug. 29 were published in our issue of Sept. 14. Chas. F. Granger, Chn. Com.; T. P. Craig, Secy. Bd. Pub. Wks.

CANTON, O.—A committee from the council and the board of health has been visiting cities to inspect the garbage disposal plants.

GALVESTON, TEX.—A report states that the council is considering the question of constructing two crematories.

WINNIPEG, MAN.—The question of building a crematory will be voted upon at the election in December.

GLOUCESTER, ENGLAND.—Bids are asked until Oct. 24 for furnishing and erecting a refuse destructor. Richard Read, Cy. Surv.; Geo. S. Blakeway, Town Clk.

STREETS AND ROADS.

WHITMAN, MASS.—Local papers state that surveys are being made for macadamizing South Ave.——The road commissioners have decided to build a new macadam road from the high school building to the Consolidated R. R. station.

EAST HARTFORD, CONN.—An appropriation of $2,500 was voted by the selectmen recently to macadamize Governor St., from Main St. to Prospect St.

NEW HAVEN, CONN.—The question of paving Chapel St., from East to Ferry St. and Edgemere Ave., is being considered, according to reports.

COHOES, N. Y.—Bids are asked by the city clerk until Oct. 27 for grading a number of streets.

NEW YORK, N. Y.—The board of public improvements has received information from Comptroller Coler authorizing an appropriation of $5,000,000 for street improvements to be made during the next year. Mayor Van Wyck has signed the resolution of the Municipal Assembly authorizing the issue of $2,000,000 in bonds for street paving.

RIVERHEAD (L. I.), N. Y.—The question of constructing a macadam road from this town to East Quogue is being considered; estimated cost, $3,000.

SYRACUSE, N. Y.—The following bids have been received by the council for paving South Salina St., from Burt to Castle St., with asphalt, asphaltina or brick pavement or with asphalt pavement on the present sandstone blocks: Empire Contracting Co., asphalt, $33,343; Syracuse Improvement Co., asphalt or brick, $33,625; Syracuse Improvement Co., Trinidad, $32,517; Asphaltina Construction Co., $33,758; Warren-Scharf Asphalt Co., $33,007.

ATLANTIC CITY, N. J.—Bids are asked until Oct. 23 for the purchase of $119,000 in bonds for paving. A. M. Weston, Cy. Comptroller.

CAMDEN, N. J.—The council has passed an ordinance requiring the Camden & Suburban Ry. Co. to pave Eighth St., from Newton Ave. to Line St., with asphalt, with brick between the tracks. The company has agreed to pay the city $25,000 by Oct. 30 as its share for pavement already done.——The street committee on Oct. 12 awarded the contract for repaving Delaware Ave., from Cooper to Federal St., and Federal St., from 12th St. to Cooper's Creek, with Belgium block.

HOBOKEN, N. J.—The contract for paving Palisade Ave with asphalt has been let to the Barber Asphalt Paving Co., New York.

JERSEY CITY, N. J.—The street and water board on Oct. 10 awarded the contract for improving Broadway to Henry Bern; for improving Clinton Ave., to the New Jersey Mexican Asphalt Co., and to the Atlantic Alcatraz Asphalt Co. a contract for improving North St.

JERSEY CITY, N. J.—Bids are asked until Oct. 24 for laying 1,629 cu. yds. of Belgian paving, and for other street improvements. Geo. T. Bouton, Clk. Bd. St. and Water Comrs.

NEWARK, N. J.—Bids are asked until Oct. 23 for paving John St., East Newark, with brick, as described in our advertising columns. Edward Kenny, Mayor; William Healey, Borough Clk., East Newark.——Bids were received from Wright & Lindsley, Daniel J. O'Rourke and Andrew McDevitt for paving, curbing and flagging Wachung Ave., and were referred to the street committee.

WOODBURY, N. J.—Chas. N. Bell, Clk. Bd. Freeholders, writes us that the board has approved the specifications for constructing a gravel road from Harrisonville to Mullica Hill, and that the specifications will probably not be approved by State Commissioner Budd before spring.

ALLEGHENY, PA.—The following contracts were let by the committee on public works on Oct. 10 for street improvements: For grading Benton Ave., Keeling & Ridge, $4,400; grading Osgood St., Northside Coal & Sand Co., $1,828; grading Kenwood Ave., Northside Coal & Sand Co., $3,887; grading and paving Oak Alley with Ligonier block, Booth & Flinn, $1,642; grading, paving and curbing old Franklin Road, Ligonier block, Northside Coal & Sand Co., $17,841; main sewer, Brighton Road, John Carson & Co., $6,985.

KENNETT SQUARE, PA.—Local papers state that Dr. H. D. Entriken, Chn. St. Com., has received estimates for macadamizing part of West St., and laying concrete gutters in this town, and that bids will soon be asked for the work.

McKEESPORT, PA.—Bids are asked until Oct. 23 for paving five streets. R. A. Hitchens, Cy. Controller.

PHILADELPHIA, PA.—Bids are asked until Oct. 24 for grading and paving different streets in this city. Wm. C. Haddock, Dir. Dept. Pub. Wks.

PITTSBURG, PA.—Local papers state that a boulevard, to run from Allegheny to Sewickley, is projected, and that inspections have been made by Director E. M. Bigelow, Consulting Engr., for the proposed driveway between Woods Run and Glenfield, which is to be included in the improvements.

SWISSVALE, PA.—Bids are asked until Oct. 20 for setting about 1,400 ft. of curbing in Edgewood Ave. C. B. Judd, Borough Engr.

BALTIMORE, MD.—Ordinances providing for the pavement of McCulloh St., asphalt block; Chase St., asphalt; Carey St., Belgian block; Fort Ave., Belgian block, and for a number of other streets, were referred to the board of estimates by the council Oct. 9. An expenditure of $200,000 will be necessary to make the proposed street improvements.

WASHINGTON, D. C.—Capt. L. H. Beach, U. S. Engr., Engineer Comr., will have a survey made of the proposed extension of 5th St. under the Baltimore & Ohio R. R. at Takoma Park to the district line, as requested by Messrs. Blair Lee, Homer Guerry and J. H. Clark, representing the Takoma Park Citizens' Association.

ROANOKE, VA.—Bids are asked until Nov. 1 for grading, guttering and macadamizing Third St., between Salem and Church Aves., S. W. J. H. Wingate, Cy. Engr.

WELLSBURG, W. VA.—Local papers state that the council has authorized the street committee to advertise for bids for macadamizing Pleasant Ave.

NEW ORLEANS, LA.—The chief clerk writes us that the specifications for paving Camp St., from Canal St. to Calliope St., with asphalt, have been approved by the council, and that the council has ordered the advertisement of bids for the work.

CINCINNATI, O.—Bids are asked until Oct. 19 for paving Klein Alley, from Findlay to Poplar St., with brick. Samuel Nieman, Pres. Bd. Cy. Affairs; Geo. H. Spellmire, Clk.

CLEVELAND, O.—The question of extending North Perry St., from Euclid to Prospect St., is being considered.

COLUMBUS, O.—The council on Oct. 9 adopted resolutions for improving Devoise, Levee and Chestnut Sts. An ordinance was introduced by Mr. Shoemaker requiring the street railway company to pave between its rails and one foot outside them with the same material as is used by the city on the remaining portion of the road.

COSHOCTON, O.—The following bids were received by the council at its last meeting for paving Walnut and Cambridge Sts. with brick: Joseph Whistle, $30,337; G. B. Herring & Son, $26,815; J. N. Kissner, $27,509; J. Wildes & Son, $27,404; Petitt & Abele, $27,962; Evan & Co., $30,963; Adams Bros., $23,665 (accepted).

ELYRIA, O.—Bids are asked until Nov. 6 for paving West Third St. W. H. Park, Cy. Clk.

TOLEDO, O.—The lowest bid for paving Hollywood Ave. with Lane block was submitted by Kerlin Bros., at $12,218, and for paving Beacon St. with Athens block O'Sullivan & Sheehan were the lowest bidders, at $7,935.

CHICAGO, ILL.—The board of local improvements has let the following contracts for paving: Church Place, brick, Aberdeen St. to Center Ave., M. J. La Bounty, $2,756; Indiana Ave., brick, 16th to 18th St., Gaffney & Long Co., $5,672; State St., granite, Kinzie St. to river, Charles J. Kelly, $2,539; Halsted St., granite, North Ave. to Division St., Charles J. Kelly, $24,154; Halsted St., brick, Lake St. to Chicago Ave., Charles J. Kelly, $19,532; Kinzie St., granite, State St. to Wells St., Charles J. Kelly, $20,291; Michigan St., granite, State St. to Rush St., Dillon & Conlon, $12,124; Michigan Ave., brick, 109th St. to 115th St., John H. Esson, $28,095; Sheridan Drive, macadam, Devon Ave. to Rogers Ave., Joseph Bairstom & Co., $33,897; Wood St., brick, Washington St. to West 12th St., Bermudez Asphalt Co., $50,800.

OSHKOSH, WIS.—Bids are asked until Oct. 19 for grading River St., between Lake and Frankfort Sts. Frank Monahan, Chn. Bd. Pub. Wks.

KANSAS CITY, MO.—Bids are asked until Oct. 21 for paving the alley between Washington St. and Pennsylvania Ave. with brick, and for paving the alley between McGee St. and Oak St. with brick. Henry A. Wise, Cy. Engr.

KANSAS CITY, MO.—Bids are asked until Oct. 24 for paving in Woodland Ave. and in Genesee St. with brick. Henry A. Wise, Cy. Engr.——Bids are asked until Oct. 25 for paving Benton Boulevard with macadam. Geo. E. Kessler, Secy. Bd. Park Comrs.

LAWRENCE, KAN.—The council on Oct. 3 passed an ordinance for paving Massachusetts St. with brick, on a six-inch base of macadam.

OAKLAND, CAL.—Reports state that the following contracts have been awarded by the council: Remacadamizing Ninth St., from Franklin to Webster St., Piedmont Paving Co.; for remacadamizing 16th St., from San Pablo Ave. to Telegraph Ave., Piedmont Paving Co.; for macadamizing 38th St., Marget to West St., Oakland Paving Co.

MEXICO, MEX.—Bids are asked by the city council for paving the streets of this city with asphalt, and for keeping the same in repair. The work will involve an expenditure of $2,000,000. Specifications and other information may be had at the office of the Mexican Consulate-General, 35 Broadway, New York, N. Y.

MANUFACTURING PLANTS.

CONCORD, MASS.—Reports from Boston state that the American Woolen Co. has secured a large tract of land at Concord Junction, and will erect there this fall a wool storehouse to hold 25,000,000 lbs. of wool and a large shoddy plant.

WESTFIELD, MASS.—It is reported that the capital stock of the William Warren Thread Co. has been increased from $125,000 to $175,000 for the purpose of erecting a 2-story addition. William Warren, Pres.

BROOKLYN, N. Y.—The Equitable Silk Mills at Cornelia St. and Prospect Ave. were destroyed by fire Oct. 13. Reported loss on stock and machinery $30,000; on building, $15,000.

HASTINGS, N. Y.—An explosion at the Hastings Cable Works in this village Oct. 13 caused damage estimated at $100,000.

TROY, N. Y.—E. W. Marvin, Troy, is to erect a new collar factory building at 5th Ave. and Federal St.——Searle, Gardener & Co. are to erect an additional building, 50×70 ft., to its plant on River St. M. F. Cummings & Son, Archs., Troy Times Bldg.

CONNELLSVILLE, PA.—The American Tin Plate Co. it removing its West Newton mill to the plant at Connellsville, doubling the capacity of the latter works.

HOMESTEAD, PA.—L. Benz & Bros., Pittsburg, Pa., are reported to have been awarded the contract for erecting a new brewery, 120 × 136 ft., on 7th Ave., for the Homestead Brewing Co.; estimated cost, $150,000.

PITTSBURG, PA.—Reports state that Lytle Bros., Wilkinsburg, Pittsburg, have been awarded the contract for erecting a new plant for the Pittsburg Auto-Car Co. at Wilkinsburg, including a 2-story main building, 200 × 50 ft., and several shops.

COLUMBUS, GA.—George H. Clayton, 111 Garden St., Atlanta, Ga., was awarded the contract Oct. 5 for erecting the annex to Eagle & Phoenix No. 3 mill. The building will be five stories in height.

LAFAYETTE, IND.—A fire in this city Oct. 6 damaged the plant of the Lafayette Bridge Co.; estimated loss, $75,000. Wallace Marshall, Pres., is reported to have said that a new building will be erected at once.

CARROLLTON, MICH.—The plant of the Brewer Lumber Co., at Carrollton, a suburb of Saginaw, was damaged by fire Oct. 12; reported loss, $60,000.

CHICAGO, ILL.—The 6-story factory building of the W. C. Ritchie Paper Box Co., 203 Green St., was damaged by fire Oct. 17. Total loss, $165,000; loss on building, $90,000.

ST. PAUL, MINN.—The Northwestern Grass Twine Co. has been granted permission to erect a 3-story brick addition, 414 × 77 ft., to its plant on Front St.; estimated cost, $60,000.

ST. LOUIS, MO.—The Monarch Rubber Co. has been granted a permit for erecting a 2-story rubber factory and boiler rooms, 236 × 156 ft., in Bittner St., to cost $40,000.

GAS PLANTS.

NEW BRUNSWICK, N. J.—The New Brunswick Gas Light Co. transferred its plant on Oct. 16 to a Newark syndicate, which is represented by John C. Eisele, Nathaniel King, Halsey M. Barrett and George E. Halsey. Both companies have been represented by Henry G. Parker, cashier of the National Bank of New Jersey, who has acted as agent in the transaction. It is probable that F. Bayard Kirkpatrick, President of the old company, and other officers, will be continued on the new board.

BUCKHANNON, W. VA.—Local papers state that the question of lighting the city's streets with gas is under consideration. It is proposed that the Eastern Oil Co. will construct a pipe line, from the Ervin well No. 1, three miles below Weston, to and throughout the city for the purpose of conveying its material for lighting purposes. Surveys for laying the proposed line have been completed, and the work is estimated to cost $60,000.

MILWAUKEE, WIS.—Reports state that the Milwaukee Gas Light Co. has decided to construct a large gas reservoir.

ADAIR, IA.—The question of establishing a gas works is being considered. An acetylene gas plant is reported to be in favor.

BAKER CITY, ORE.—Bids for lighting the city's streets were submitted by the Chicago New White Light Gas Co., the Baker Improvement Co., and the Baker City Gas Light & Coke Co., and will be reported on at the next meeting of the street committee.

MERIDA, YUCATAN, MEX.—Press reports state that the State of Yucatan has granted a 20-year concession to Thos. J. Agnew, Flushing (L. I.), N. Y., for supplying this city with gas. A company has been formed to receive the franchise, and will be known as the Merida Gas & Electric Light Co. The company will soon erect a large plant, and proposes to erect an electric light plant in this city soon. About $200,000 will be expended for the proposed improvements.

HONOLULU, H. I.—A Honolulu exchange announces that the Oceanic Gas & Electric Co. has applied to the government for a charter to conduct a general gas lighting and power business on the plantations of the islands of the group, to operate an electroplating and galvanizing plant in Honolulu and deal in mechanical goods. Capital stock, $50,000. T. R. Walker, M. P. Robinson, B. F. Dillingham, M. M. Kohn, Mgr.; F. J. Cross, Pres., and F. D. Greany, are interested.

BLACKPOOL, ENGLAND.—The corporation has applied to Parliament for permission to issue $350,000 in bonds for a new gas works, according to reports. The electrical committee has decided to erect a chimney 200 ft. high at the electrical works.

MISCELLANEOUS CONTRACTS.

FIRE-ALARM SYSTEM.—Cleveland, Tenn.—Reports state that the city will purchase an electric fire-alarm system. Address Chief of Fire Department.

BONDS.—Cohoes, N. Y.—Bids are asked until Oct. 23 for the purchase of $40,246 in bonds for public improvements, according to reports. Miller Hay, Chamberlain.

DREDGING.—Apalachicola Bay, Fla.—Bids are asked until Nov. 14 for dredging in this bay, as stated in our advertising columns. Capt. C. A. F. Flagler, U. S. Engr., Montgomery, Ala.

DREDGING.—Galveston, Tex.—Bids are asked until Nov. 15 for deepening the channel from Galveston Harbor to Texas City, as stated in our advertising columns. Capt. C. S. Riche, U. S. Engr.

BONDS.—Middletown, O.—Reports state that an election will be held on Oct. 23 to vote on the question of issuing $100,000 in bonds for park improvements. L. P. Smith, Mayor, may be addressed.

RIVER IMPROVEMENTS.—Skowhegan, Me.—The Kennebec Water Power Co., Chas. A. Dunn, Pres., at its last meeting, voted to expend $5,000 in clearing the Kennebec River from obstructions, etc.

ORE DOCK.—Allouez Bay, Mich.—The contract for constructing an ore dock of 62,000 tons capacity, at this place, has been let by J. J. Hill to Foley Bros., St. Paul, Minn., and will cost about $200,000.

TUNNEL.—Hazelton, Pa.—The contract for driving a tunnel through the Quakake Mountain has been let to John Lloyd, Wyoming, by Coxe Bros. & Co. The tunnel will drain the Beaver Meadow mines owned by that company.

DREDGING.—Montgomery, Ala.—Bids are asked until Nov. 14 for dredging on Carrabelle, Fla., as stated in our advertising columns. Capt. C. A. F. Flagler, U. S. Engr.

LEVEE.—New Orleans, La.—Bids are asked until Nov. 15 for constructing about 4,000,000 cu. yds. of levee in Pontchartrain, Lafourche and Atchafalaya districts, according to reports. Maj. Geo. McC. Derby, U. S. Engr., Vicksburg, Miss.

CANAL.—Chicago, Ill.—Bids are asked until Nov. 13 for constructing 12 miles of Western Section, Illinois & Mississippi Canal, as stated in our advertising columns. L. L. Wheeler, Asst. Engr., Sterling; Maj. W. L. Marshall, U. S. Engr., 1637 Indiana Ave.

DOCK.—Levis, Que.—Local papers state that Thomas Powers has received a contract for the extension of the Lorne Graving dock, at this place. The dock is to be lengthened from 445 ft. to 600, and the departmental estimates for the work are $170,000.

FENCING.—Uniontown, Pa.—A contract has been let to Robert H. Snead for erecting 30 miles of wire fencing, to cost about $12,000. The fence will extend from Uniontown to Masontown, along both sides of the extension of the Pennsylvania Ry., to the coke field and its branches.

TOOLS.—Washington, D. C.—The bureau of steam engineering of the Navy Department received on Oct. 10 bids for furnishing the tools for the new steam engineering machine shops at the Brooklyn Navy Yard. There were 32 bidders, and in all about 1,800 quotations for the different tools required.

PIER.—Santiago, Cuba.—The Pennsylvania Steel Co. has received a contract from the Cuba Steel Ore Co., for erecting a steel ore pier, 1,000 ft. long, to be built 30 miles east of this city. The contract includes the construction of all bridges between the pier and the ore mines, a distance of 10 miles.

TELEPHONE.—Pittsburg, Pa.—The Pittsburg & Allegheny Telephone Co. awarded the contract for constructing its main telephone exchange on Oct. 7 to William Miller & Son at $76,000; also, a contract for 95,000 ft. of heavy cable for underground conduits was let by the company to the Standard Underground Cable Co.

CANAL WORK.—Albany, N. Y.—The following bids were received by John N. Partridge, Supt. Pub. Wks., on Oct. 11 for canal work: Chapman & Co., Buffalo, improvement of Watkins Harbor, $11,900; C. W. Higley, Sandy Hill, rebuilding waste weir and spillways at Wilburs Basin, $19,455; Finch, Clark & Sherrill, Sandy Hill, improvement of Glens Falls feeder, $3,532.

DOCK.—Dundee, Scotland.—Reports state that the finance committee of harbor trust has appointed a subcommittee to make arrangements for the new harbor bill which is to be promoted in the next session of Parliament. Bonds to the extent of $500,000 will be issued for the erection of a coal hoist, a fish dock and other improvements.

PIER.—Bridlington, England.—Reports state that Messrs. Mangnall and Littlewood, Manchester, have completed plans for the construction of a pier and pavilion, to cost $350,000, to be erected opposite the proposed hotel, which, together with a theatre and arcade, will be located on the north side of this town, and are estimated to cost $300,000.

BOND.—Oakland, Cal.—A resolution providing for an issuance of $1,485,000 in bonds for public improvements has been referred to the committee of the whole of the council, according to reports. The appropriation provides for the cost of erecting docks and wharves at West Oakland, for which $500,000 is assessed, and for filling in North Oakland marsh, at the cost of $35,000.

PIER.—Tompkinsville, N. Y.—The following bids were received by Lieut.-Col. D. P. Heap, U. S. Engr., on Oct. 16 for constructing a landing pier at Romer Shoal light station: E. C. Moore, 150 Pearl St., New York, $3,000; Degnon-McLean Construction Co., 1 Broadway, New York, $3,100; Central Contracting Co., 99 Cedar St., New York, $4,300; Edgar Zielian, Long Branch, N. J. $5,825; Structural Engineering Co., 39 Cortlandt St., New York, $6,850.

DRY-DOCKS.—Boston, Mass.—The contract for supplying pumps to be used in the new dry-docks of the navy yard has been let to the Prindle Pump Co., New York, and calls for three centrifugal pumps, each having a capacity of 35,000 gallons a minute. The company has obtained the contract for 2,000 HP. of boilers and 600 HP. of engines. The electrical portion of the contract will be filled by the Westinghouse Electric & Mfg. Co., and consists of direct-current generators and three 300-K-W. motors. The whole contract is worth $140,000.

HARBOR IMPROVEMENTS.—Montevideo, Uruguay.—Reports state that the Government of Uruguay will soon invite a number of first-class firms to tender for the execution of harbor works at this port, which have been a subject of discussion for many years. The plans, which provide for a naval harbor, have been decided upon, and the work is estimated to cost $12,500,000, and will be completed within seven years. Bonds will be issued to the extent of 7,000,000 pesos, at 6%, with a 1% sinking fund, and may be purchased in Montevideo and London.

An increase of 3% on the import duties and of 1% on export duties is to be made and will go into effect on Jan. 1 next, to pay the interest on the loan. According to the average of the last few years, it is expected that 630,000 pesos will be realized on the imports and 310,000 on the exports, or about $900,000. The harbor and light dues are also to be devoted to the service of the loan.

CONTRACT PRICES.

SEWERS AND PAVING.—Greenville, O.—The council opened bids Sept. 29 for improvements in Broadway and other streets. Eliot M. Miller, Cy. Clk., writes us that there has been no award on account of an injunction, filed by a bidder. Mr. Miller thinks that the suit will be dismissed by the court Oct. 20. T. B. Townsend Brick Co. bid 74 cts. for Townsend block; the lowest bid was that of Pfaff, Ringwald & Smith; the bids were as follows:

BRICK PAVING.—Fort Dodge, Ia.—The Likes Improvement Co., Des Moines, Ia., has been awarded the contract for brick paving in First Ave., at $1.38 a sq. yd.

LEVEE WORK.—New Orleans, La.—Lt.-Col. Geo. McC. Derby, U. S. Engr., let the following contracts Oct. 5, 1899, for certain levee work: Buquoi levee, N. R. Phillips, 12 cts. a cu. yd.; Barroza levee, Sam. Robertson, 22.50 cts These levees are in the Atchafalaya district. Landry levee, M. L. Linnen, 13 cts. a cu. yd.; Thiery levee, F. M. McLaughlin, 14 cts.; Lorio levee, John Pollard, 13.99 cts. These levees are in the Pontchartrain district. Alliance levee, Albert J. Locaze, 12¾ cts. a cu. yd., Lafourche district.

ASPHALT PAVING.—Kansas City, Mo.—The Barber Asphalt Paving Co. has been awarded the contract at $1.85 a yd. for Trinidad asphalt paving; total, about $120,000.

Bids Received at Greenville, O., Sept. 29, 1899, for Sewers and Paving.

Bidder.	M. G. Cain.	Norris & Clark.	Geo. H. Bodett.	A. Parady.	C. H. Daniels & Co.	Siebert, Gist & Smith.	Pfaff, Ringwald & Smith	Gingry & Murphy.	A.H. Brandon & Co.	Petid & Abele.	Van Sandt & Meeds	A. J. Hinkle & Bro.	P. Murry & Sons.	Greenville Constn Co.
White limestone	$0.45	.....	.....	$0.59	.....	$0.45	$0.59	.....	$0.51	$0.65	$0.65	$0.50	.....	$0.70
Berea	.39	$0.48	$0.47	.42	$0.48	.45	.43	.40	.45	.49	.45	.44	.43	.38
Amherst	...	.50	...	.59	.50	.45	.45	...	.51	...	.47	.44	.43	.55
White limestone	.75	...	...	.95	...	.90	1.18	...	.72	.85	1.25	1.25	...	1.10
Berea	.65	1.10	.61	.80	.85	.90	.43	.75	.72	.62	.90	.85	.75	.60
Amherst	...	1.12	...	1.05	.91	.90	.45	...	.72	...	1.00	.85	.75	.90
24" sub-drn, per ft.,complt.	1.23	.96	1.34	.93	1.60	1.02	1.42	1.35	1.21	1.19	1.75	1.50	1.51	1.23
15" " " "	.65	.57	.66	.52	.65	.66	.73	.59	.76	.78	1.35	1.00	.61	.50
12" " " "	.50	.50	.44	.43	.54	.51	.39	.44	.43	.69	.50	.51	.50	.48
Manholes, complete	25.00	27.50	31.00	24.00	35.00	13.00	28.00	23.00	30.00	48.00	25.00	30.00	21.01	35.00
Catchbasins, complete	9.00	24.00	28.00	21.00	25.00	17.00	20.00	18.00	18.00	39.00	25.00	20.00	25.01	16.00
Sand, per cu. yd.	.50	.60	.50	.47	.50	.50	.45	.55	.48	.50	.70	.60	.50	.50
Concrete f'ndat'n, pr cu.yd:														
Modusa, Portland cement.	3.25	.76	3.60	3.30	3.08	...	3.48	2.51	2.00	4.40	4.00	3.25	6.01	3.50
Hydraulic	1.80	.50	2.00	1.63	1.40	1.50	1.62	1.37	1.58	2.40	1.00	1.60	2.01	2.05
Excavation, per cu.yd.	.23	.30	.22	.28	.28	...	.22	.24	.24	.19	.01	.22	.21	.21
Cement filler, per sq. yd.	.09	.16	.10	.13	.06	.08	.08	.15	.18	.12	.07	.10	.10	.10
Murphy grout, a sq. yd.	.15	.17	.17	.17	.18	.15	.155	.15	.18	.15	.16	...	.15	.16
Tar filler, a sq. yd.	.15	.16	.14	.14	.18	.15	.15	.15	.16	.14	.10	.10	.15	.10
Buckeye grout, a sq. yd.	.14	.16	.16	.18	.16	.15	.145	.15	.18	.15	.16	.14	.14	...
Bit. Pont filler, lin. ft.	.02	.03	.03	.025	.01	.02	.02	.015	.035	.20	.02	.02	.02	.01
Protection curb, a lin. ft.	.10	.28	.33*	.13	.10	.20	.20	.25	.15	...	.25	.20	.11	.10
Rep. street, a sq. yd.	2.50	.50	.30	.37	.15	3.00	2.00	.30	1.50	2.00	1.50	1.00	1.01	3.00
Vitrified brick, a sq. yd.														
delivered: Hallwood blk	.76	.825	...	.73	.79	.745	.695	.725	.78	.685	1.03+	.70	.88	.64
Indiana paving block	.80	.83	.89	.74	.79	.785	.68¾	.775	.83	.72	1.08	.70	...	.67
Nelsonville block	.76	.84	.79	.70	.76	...	.68	.715	.78	.67	1.02	.68	.86	.63
Trimble block	.78	.92	.85	...	.795	.75	.71	.735	.79	.70	1.05	.70	...	.66
Athens block	.76	.84	.79	.70	.76	.73	.68	.715	.78	.67	1.02	.68	.86	.63
Townsend block	.87	.88	.93	.74	.88	.84	.75	.785	.88	.74	1.12	.75	...	.70
Metropolitan press. block	.87	.95	.97	.82	.88	.84	.82	.85	.88	.82	1.15	.82	1.01	.74
Wassal block	.87	.90	.92	.77	...	.735	.785	.78	.91	.775	1.12	.77	...	.755
Laying brick, a sq. yd.	.05	...	.05	.13	.08	.10	.08	.05	.095	.13	.07	.08	.06	.13

*For new; 15 cts. for old.

SEWER.—Brooklyn, N. Y.—The department of sewers, New York, on Oct. 11, 1899, received the following bids for constructing a sewer in Morgan Ave., from Johnson Ave. to Benton St.; the work to be completed in 300 days:

Quantities.		J.J.Creem, "Eagle" Bldg., Brooklyn.	J. Kelly, Court St., Brooklyn.
78-in. brick sewer	2,550 lin. ft.	$21.00	$22.00
66-in. " "	1,425 " "	9.20	10.00
Manholes	24 each	25.00	25.00
Street basins	16 "	85.00	95.00
Foundation timber	385,000 ft. B.M.	27.50	25.00
Piles	42,000 lin. ft.	.12	.10
Earth excavation	3,000 cu. yds.	.25	.10
Sub-drain, cem. pipe.	3,975 lin. ft.	.30	.50
Total		$86,262	$88,643

SEWERS.—New York, N. Y.—The following bids were received Oct. 11 for constructing sewers in 103d St., Briggs Ave., E. 102d St. and Jerome Ave.; the work to be completed in 350 days:

ASPHALT PAVING.—Youngstown, O.—The Cleveland Trinidad Paving Co. has been awarded the contract at $1.70 for 4,860 yds. of sheet asphalt. F. M. Lillie, Cy. Engr.; F. C. Brown, Cy. Clk.

STREET CLEANING.—New York, N. Y.—The following bids were received by the commissioner of street cleaning Oct. 6, 1899, for collecting street sweepings and household refuse in the borough of Queens; the quantities for the year being, First ward, 31,500 tons; Second, 9,700 tons; Third, 15,300 tons; Fourth, 12,000 tons; Fifth, 12,400 tons: First, Magnus Larsen, Astoria, L. I. (accepted), $1.90; Second, Card & Monteverde, Elmhurst, L. I. (accepted), $1.98; Mathaus Hohfeler, Middle Village, L. I., $2.60; Third, Magnus Larsen (acepted), $2.65; Fourth, Thos. Foley, Vanderbilt Ave., Jamaica, L. I. (accepted), $2.00; Fifth, S. N. Decker, Far Rockaway, L. I. (accepted), 98 cts.; Lewis Pearsall, Far Rockaway, $1.95.

PAVING.—Chicago, Ill.—The board of local improvements received bids Oct. 7, 1899, for about $300,000 worth of paving in three streets. The names of the bidders have not been made public, but the prices are as follows: Church Place, brick, $2.05 a sq. yd.; Indiana Ave., brick, $1.59; North State St., granite, $3.47; North Halsted St., granite, $3.19; North Halsted St., brick, $1.93; Kinzie St., granite, $3.24; Michigan St., granite, $3.23; Michigan Ave., brick, $1.89; West Monroe St., asphalt, $1.89; Evanston Ave., macadam, $2.50; Wood St., brick, $1.92; Jefferson St., brick, $1.96.

Bids Received at New York, N. Y., Oct. 11, 1899, for Constructing Sewers.

Quantities.		E. J. McLaughlin, 585 E. 134th St.	Wm. Dalton, 338 St. Ann's Ave.	B. Dunn, 321 E. 68th St.	Kelly & Kelley, St. Paul Bldg.	P. F. Brennan, 721 E. 180th St.	W. J. Dempsey, New York.	Jas. Pilkington, Ft. Washgtn Park.	W. J. Moore, 170 E. 89th St.
30-in. brick sewer	205 lin. ft.	$6.00	$6.00	$6.50	$4.50	$8.50	$6.00	$6.50	$10.00
30-in. iron pipe sewer	100 " "	10.00	6.00	6.50	15.00	7.00	4.00	5.00	10.00
18-in. pipe sewer	1,725 " "	5.50	3.50	6.50	2.60	3.00	3.00	4.00	4.00
15-in. " "	1,330 " "	6.00	3.00	6.50	2.50	3.00	2.75	3.25	3.00
12-in. " "	3,340 " "	5.00	3.00	6.50	3.00	2.50	2.30	3.00	2.50
Spurs	1,400 each	...	.50	.01	.35	.50	.50	.50	1.00
Manholes	68 "	50.00	50.00	.01	100.00	50.00	50.00	50.00	40.00
Receiving basins	2 "	100.00	150.00	.01	180.00	150.00	150.00	150.00	150.00
Rock excavation	5,000 cu. yds.	..	3.75	.01	2.15	2.90	3.50	2.90	2.00
Concrete	15 " "	...	.01	.01	3.00	3.00	1.00	3.00	3.00
Rubble masonry	35 " "	...	.01	.01	3.00	3.00	1.00	3.00	3.00
Broken stone	30 " "	...	.01	.01	.75	1.50	.50	2.00	1.00
Timber	10,000 ft. B.M.	...	.01	.01	30.00	30.00	25.00	20.00	15.00
6 to 18-in. drain pipe	100 lin. ft.	...	1.00	.01	.50	...	1.00	2.00	...
Total		$39,998	$45,128	$43,617	$39,035	$39,353	$40,460	$42,585	$37,040

ASPHALT REPAIRING.—Detroit, Mich.—The Barber Asphalt Paving Co. has been awarded the contract for repairing 500 or more sq. yds. of asphalt paving at $1.95 a yd.; the concreting to be done by the city. Last year the price was $2.00, including concreting, etc.

SEWERS.—New York, N. Y.—The sewer commission received the following bids Oct. 11 for constructing sewers in 179th St., Walton Ave., Morris Ave and Creston Ave.; the work is to be completed in 200 days; all local bidders:

VAPOR LIGHTING.—Cleveland, O.—The following bids were received last week for furnishing 3,200 50-c. p. vapor lamps for one year: Al. G. Daykin, $33.49 a lamp and $1.40 for setting new posts; Welsbach Street Lighting Co. of America, $35; Globe Heat & Light Co., $38.50; Sun Vapor Street Light Co., $37.40. All of these wanted $1.25 for setting new posts when necessary. Last time a bid of $30 was received. That was in June. Since that time the city has been setting aside an appropriation of $2,000 from week to week for lighting the streets.

Bids Received at New York, N. Y., Oct. 11, 1899, for Constructing Sewers.

Bidder.	Sewers: 30-in. brick, 280 lin. ft.	Sewers, Pipe: 18-in., 260 lin. ft.	15-in., 765 lin. ft.	12-in., 2,100 lin. ft.	Spurs, 860 each.	Manholes, 33 each.	Receiving basins, 2 each.	Rock excavation, 1,850 c.yds.	Concrete, 20 c.yds.	Rubble masy, 75 c.yds.	Broken stone, 100 c.yds.	Timber, 25,000 ft.B.M.	6 to 18-in. drain pipe, 25 lin.ft.	Total.
Kelly & Kelley	$4.70	$2.60	$2.50	$3.00	$0.25	$100.00	$180.00	$2.15	$3.00	$3.00	$0.75	$30.00	$0.50	$19,180
James Pilkington	6.00	5.00	3.75	2.50	.50	50.00	149.00	1.00	3.00	3.00	2.00	30.00	2.00	16,612
W. R. Skillman	5.00	4.00	3.00	3.00	.50	50.00	100.00	.50	...	2.00	...	20.00	...	14,890
Wm. J. Moore	10.00	4.00	3.00	2.50	1.00	40.00	150.00	2.00	3.00	3.00	1.00	15.00	...	18,325
John J. O'Brien	12.00	3.75	3.50	2.50	.40	45.00	150.00	...	...	...	...	25.00	...	15,017
P. F. Brennan	8.50	3.00	2.50	3.50	.50	50.00	150.00	2.50	3.00	3.00	1.50	10.00	...	20,113
Bart Dunn	6.50	6.50	6.50	6.50	...	.....	......	...	...	...	...	.....	...	22,162
Wm. F. Norton	5.75	3.30	3.00	3.00	...	50.00	150.00	3.50	...	...	2.00	.....	...	19,688
William Dalton	5.00	3.00	3.00	3.00	.50	50.00	150.00	3.50	.01	3.00	.05	20.00	1.00	20,570
E. J. McLaughlin	10.00	10.00	5.00	3.00	...	60.00	200.00	.01	.01	.01	.01	.01	.01	17,926
Wm. J. Dempsey	6.00	3.00	2.75	4.00	.50	40.00	150.00	1.00	.50	1.00	.75	25.00	1.00	17,674
James Reilly	10.00	4.00	4.00	3.00	.01	50.00	150.00	3.00	.01	.01	.01	30.00	.01	21,461
George Clark	6.50	3.50	3.50	2.50	.35	50.00	150.00	1.00	3.00	3.00	2.00	30.00	1.00	16,019

ELECTRIC LIGHTING.—Cynthiana, Ky.—It is stated that the following bid was received Sept. 12, 1899, from Riggs, Reynolds & Dickey, for public lighting, there to be 30 arc and 40 or more incandescent lights; (1) being a light a year to burn until 12 p. m., five and ten years respectively; (2) for all night lights, five and ten years: 1,200-c. p., (1) $65 and $60; (2) $79 and $73; 2,000-c. p., (1) $70 and $65; (2) $81 and $78; 25-c. p. (incandescent), (1) $15 and $13; (2) $18 and $16.

INDUSTRIAL NOTES.

PETER GERLACH & CO., Cleveland, O., report 26 recent sales of outfits for large saw mills in different parts of the country.

THE CHRISTENSEN ENGINEERING CO., Milwaukee, manufacturing air brakes for street cars, is building new works, of five times the capacity of the present works, and capable of future enlargement.

NORTHERN ENGINEERING WORKS, Detroit, Mich., crane manufacturers, are making an addition to the plant recently purchased by it. The interior arrangement of the machine shop and office is also being remodeled, with a view to enlarging the capacity of the plant.

THE NEW ERA IRON WORKS CO., Dayton, O., manufacturers of the "New Era" gas and gasoline engines, has recently purchased a new plant, which it is now remodeling and equipping with improved machinery. The demand for its engine has compelled the company to double the capacity of its plant.

BULLOCK ELECTRIC MFG. CO., Cincinnati, reports sales for month of September involving 61 machines, ranging in size from 3 to 150 K-W. Among the more important were 15 engine-type generators for U. S. Army transports and ten 50-HP. motors to operate at 200 R. P. M. for Dick, Kerr & Co., of London, England.

THE AUTO-ACETYLENE CO., 21 Park Row, New York, reports that the demand for its acetylene generators has increased so that it has been obliged to make a 2-story 40 × 90-ft. addition to its plant in Brooklyn. It furnishes generators of from 5 to 3,000-light capacity. It now has an office at 27 Rue de Richelieu, Paris, and a branch factory in the same city.

THE UNION BOILER TUBE CLEANER CO., 263 Penn Ave., Pittsburg, has recently finished what is claimed to be the largest contract ever awarded for cleaning boilers, being for 22 water-tube boilers, containing an aggregate of ten miles of 4-in. tubes. The company has just shipped eight machines to England and Scotland. The initial machaine for export had been shipped just one year previously.

THE BERLIN IRON BRIDGE CO., East Berlin, Conn., has the contract for a 117-ft. bridge at West Seneca, N. Y. The company is shipping to Mexico the structural iron material for the roof for a building 80 ft. wide and 255 ft. long. This roof is to be erected on masonry walls, and the building is to be used for a paper mill for the San Rafael Paper Co., city of Mexico. This is a duplicate of work furnished these parties something over a year ago.

THE REPUBLIC CHEMICAL & CREOSOTING CO., 1116 Chamber of Commerce, Chicago, creosoted the paving blocks and timbers required for the Rush St. bridge, in Chicago, which is being paved with creosoted long-leaf yellow pine blocks, treated with 10 lbs. of Bee Hive creosote oil to the cubic foot. In addition to this, all of the present timbers of the bridge are being replaced with creosoted timbers, a total of 95,000 ft. Only the heart-wood of the yellow pine is used.

THE NEW ENGLAND STRUCTURAL CO., Boston, is rebuilding a new steel frame building at its works at Everett, Mass. This company is at present at work on contracts for the American Steel & Wire Co. at Worcester; the new theatre and office building for the F. L. Ames estate, Boston; bridges for the Boston & Albany R. R., etc. The new steel frame for the Bross & Straus building in Boston was taken from the large stock of beams, angles, plates, etc., which this company has on hand at its works.

PAWLING & HARNISCHFEGER, Milwaukee, inform us that they have orders for 56 electric cranes, varying from 3 to 150 tons capacity. It will require six to nine months to fill these orders, even with the increased capacity of the plant. They have just finished a new shop, in which are installed three of their own traveling cranes of 10 to 25 tons capacity, and an old hand crane is being replaced by a new 10-ton electric crane. A new power house is now being built, from which all tools will be run by electric motors of the company's own make.

PIERCE-CROUCH ENGINE CO., New Brighton, Pa., reports the following sales of its gas and gasoline engines in the Pittsburg District for the month of September: R. E. Stone, McKeesport, Pa., two 35-HP.; Geo. E. Lorch & Bro., S. S. Pittsburg, one 35-HP. and one 25-HP.; Jas. J. Weldon, Pittsburg, one 35-HP.; H. L. Braun Dancing Academy, one 35-HP. All of the above to be installed to operate electric light plants. In addition to these, the following orders were taken for engines to be installed for miscellaneous purposes: American Art Glass & Lamp Co., Byesville, O., one 50-HP.; D. L. Clark & Co., McKeesport, Pa., one 13-HP.; U. S. Glass Co., S. S. Pittsburg, one 20-HP. The following sales have already been made in October for large engines: Pittsburg Valve & Machine Co., Allegheny, Pa., one 50-HP.; Macbeth-Evans Glass Co., Pittsburg, one 25-HP.; Dawes Mfg. Co., Pittsburg, one 25-HP.; Record Milling Co., Punxsutawney, Pa., one 50-HP.; Standard Horse Nail Co., New Brighton, Pa., one 40-HP. and one 50-HP. engine. This last order makes eight engines furnished the Standard Horse Nail Co. of this make, the first having been installed over four years ago. When these last two engines are installed the entire plant will be run by gas engines. The Pierce-Crouch Engine Co. informs us that the capacity of its plant will be doubled in the near future.

Mail Delivery Notice.

Special efforts are made to deliver our paper to its readers each week at the earliest possible moment. All papers for Boston, Philadelphia and Washington are usually in the New York post-office by midnight Wednesday evening; all Brooklyn and New York city papers by 3 o'clock—in ample time for the first delivery Thursday morning. The entire edition, including foreign copies, is in the mail soon after 6 o'clock Thursday morning. If your paper is not received promptly we advise that you make a complaint to your local post-office officials.

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INDUSTRIAL

Mr. D. W. Montgomery, A

Dr. Josiah H of the State B

Mr. T. H. Ja Street Superin

Mr. H. E. Ti been appointed at the Univer

Mr. John Sl dent of the Se of the Florida

Mr. W. G. B ger of the Kan with office at signed.

Mr. Charles Canadian Pac in 1886, has that line.

Mr. George elected Preside tain Ry. Co., on Oct. 20.

Mr. Chas. A. C. W. Hunt C cago, Rock I Topeka, Kan.

Mr. Lucius R. Co., of Bos Maine Central of Bangor, Me

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Mr. A. L. M Louis, Mo., engineering a Rolla, Mo. Lincoln Trust

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Mr. William the Argentine come Director be held at B Lord, Ex-Gov cessor to Mr.

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Mr. R. L. the L. P. & signed, and a general en with consult bridge and l companies.

Mr. Frank Inspector in Mutual Fire charge of M tion as Assis College. M lege in 1887, in 1887, and University i